Physician

Journal for the Hospital Staff Officer

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December 1957, Vol. 3, No. 12

Contents

Resident Physician

December 1957, Vol. 3, No. 12

Articles

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months?

years?

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•Reifenstein, E. C., Jr., in Harrison, T. R.: Principles of Internal Medicine, ed. 2, N York, The Blakiston Company, Inc., 1954, chap. 98, pp. 702, 703.

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Resident Physician

Departments

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Journal for the Hospital Staff Officer

Resident Physician

Articles are accepted for publication with the understanding that they are contributed solely to this publication, and will directly interest or be of practical value to resident physicians. When possible, two copies of the manuscript should be submitted. Articles with photographs, illustration or drawings are especially desired.

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references: (1) Settel, E.: Am. Pract. & Digest Treat. 8:443, 1957. (2) Batterman, R. C., and Grossman, A. J.: Federation Proc. 14:316, 1955.

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Resident Physician

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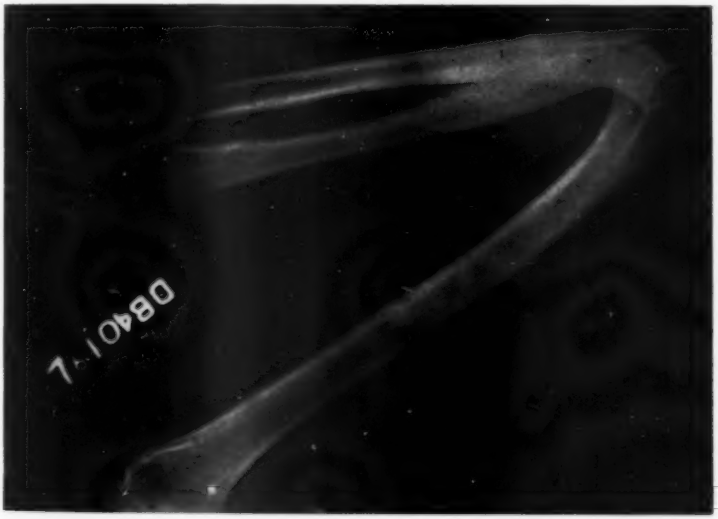
Viewbox Diagnosis

Edited by Maxwell H. Poppel, M.D., F.A.C.R.,
Professor of Radiology, New York University College of Medicine
and Director of Radiology, Bellevue Hospital Center

What Is Your Diagnosis?

1. Scurvy
2. Lues
3. Tumor
4. Pulmonary osteoarthropathy

Answer on page 168



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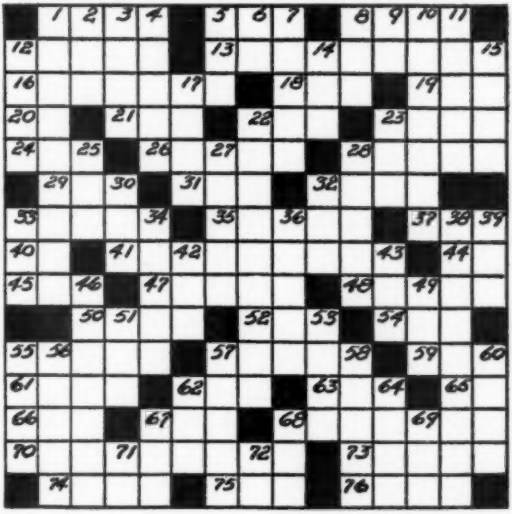
Resident Relaxer



ACROSS

1. Physiognomy
5. Those in office
8. Tapioca
12. Indol
13. Small blood vessel
16. Acetbromanilide
18. Some
19. Surgeon General's Office (Abbr.)
20. Hypertension (Abbr.)
21. Norse goddess of healing
22. Prefix denoting movement
23. ——horn Calculus
24. Egg of a louse
26. A coal-tar product used as a dye
28. An infectious disease of horses, cattle and sheep
29. Pinch
31. ——'s murmur, Venous Hum
32. Centers of disease processes
33. Chest sounds
35. A measure of length (Var.)
37. First portion of the duodenum, as seen in an x-ray
40. An international group (Abbr.)
41. Those suffering the loss of the faculty of language
44. Nickel (Symb.)
45. Greek letter
47. Disease-causing plants of the Leguminosae family
48. Response of the auditory nerve to an electrical stimulus
50. Animal's stomach
52. A god of the underworld
54. An affirmative
55. A voracious eel
57. Epidemic gangrenous proctitis
59. The upward curve of a ship's plank
61. A Dutch cheese
62. Varnish ingredient
63. South American wood sorrel
65. District Attorney (Abbr.)
66. Distress signal
67. Absent over leave (Abbr.)
68. Relating to the breastbone
70. False arlis
73. In one's dotage
74. Ship's canvas
75. An individual lesion of an infectious tropical disease
76. A circumscribed swelling

DOWN

1. Accelerating
2. Consumed
   the root of a tooth to be crowned
3. Metal plate covering
4. Girl's name
5. International Council of Nurses (Abbr.)
6. Sodium (Symb.)
7. European country
8. Sealed (Abbr.)
9. Aluminum (Symb.)
10. Relating to † hamesto
10. Relating to the stomach
11. Any part of the body exercising a specific function
12. Test for syphilis
14. Wayside hotel
15. A Hindu system of mental discipline
17. Ferrum
22. Relating to the paths by which motor impulses travel
23. Society (Abbr.)
25. Sesame
27. Rhus glabra
28. Eponym of Sarcoid
30. A size of coal
32. Friar's title
33. Ruta
34. —— foot, talipes valgus
36. Phthisic
38. Scotch surgeon for whom an operaiton for knock-knee is named
39. Trichina host
42. In what manner
43. Cunning
46. Intemperance
49. Bronze or copper (Roman Antiq.)
51. The constellation Aries
53. An injection
55. Table (Sp.)
56. Scents
57. Philadelphia gynecologist for whom an operation for retrodisplacement of the uterus is named
58. Large body of water
60. The medical department of this University was established in 1810
62. A game of chance
64. River in Italy
67. Entire amount
68. Mariner's direction (Abbr.)
69. Brood of pheasants (Var.)
71. Lithium (Symb.)
72. Each (Abbr.)

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Letters to the Editor

Unsigned letters will neither be published nor read. However, at your request your name will be withheld.

Licensure

Received and read with interest my first copy of RESIDENT PHYSICIAN. Found your article "Licensure for Foreign Graduates" particularly intriguing and wonder if you would kindly let me know the details for the other 43 states if this is at all possible. Thanking you in advance, I am,

Richard Marx, M.D.
St. Luke's Hospital
Spokane, Washington

• *We have not yet finished the series on "Licensure for Foreign Graduates"; there are more states to come. If you will check in your hospital library for back copies of* RESIDENT PHYSICIAN *you should be able to catch up on the states already published.*

Foreign Doctors

Including my new address, I'd like to use this chance to tell you how much I appreciate your journal. It is the only paper, to my knowledge, that seems to realize that there are in the U. S. many foreign doctors and that these doctors, if they are helped by this country, are not completely useless either.

Alain Sanseigne, M.D.
Rockland State Hospital
Orangeburg, New York

Missed Point

I think you missed the point in the *Resident Roundtable* (RP—October 1957). None of the residents mentioned that the general practitioner, while having served well and faithfully until the early 1940's, has been outdistanced in the rapid advances of medicine and surgery which have occurred in recent years The city GP is thus in the terrible situation of having to dispense all sorts of vitamin injections to make a living. It's only fair to point out that he should return to a formal

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—Continued from page 24

program of education in a specialty in order to give the public the best possible care now available. This step, while appearing radical and even cruel, is far less barbaric than to permit the continuance of an obsolete brand of outmoded therapy—or to turn all GPs out to pasture. Many of the rural GPs are doing absolutely heroic work under difficult conditions. It will be some time before they will be in a position to get help in the form of recently trained specialists. So we can't ask the rural GP to leave his practice. No such circumstance pertains to the city GP who is surrounded by expertly trained surgeons and internists.

Name withheld at
writer's request

Oakland, Calif.

• *The general practitioner who was on the panel in October answers as follows:*

"While not denying the writer's basic premise, I can only say that GPs themselves are, in general, aware of their shortcomings and utilize, wherever available, specialists in their communities on a referral basis. More than that they cannot do. While sympathizing with the writer's desire for an over-all elevation of the standards of American medical care, and, in fact, sharing his wish in this matter, I must say in all honesty that the rapid advances of the science of medicine and therapy have exceeded the rate of normal evolution of the learning process among individual practitioners. I would stand by the suggestion of resident physicians made during our panel discussion that some postgraduate refresher education become established in all teaching hospitals for all the physicians of each community. I think the local medical societies, operating under a broad plan of education, could contribute funds to such an effort and require attendance of their members. This would not solve the problem, but it would be a big step in that direction."

Reprint

I read the Guest Editorial by J. Garrott Allen, M.D., with a great deal of interest in the library's issue of RESIDENT PHYSICIAN. May I please have a reprint of his article?

M. S. Bacastow, M.D.
Director of Medical Education

Methodist Hospital
Indianapolis, Ind.

• *Thank you. Tear sheets on the way.*

Pediatrics

I found your article on the practice of pediatrics (RP—October 1957) the most interesting and informative description of the practice I have ever read. Thank you for your excellent coverage of topics

—Concluded on page 38

—Concluded from page 30

which are of immediate interest to residents.

W. R. Williams, M.D.
Harrisburg, Pa.

. . . The pediatrics article was good, but how about my specialty?

F. Rothman, M.D.
Obstetrics
Chicago, Ill.

• *Next month.*

Resident Wife

You once promised to put a section in RESIDENT PHYSICIAN which would contain something for the gals, the wives of residents and interns. Well, I've been watching and waiting but nary a sign have I seen of any such section. Why?

Mrs. R. L. Levereau
Houston, Texas

• *We still intend to keep our promise — eventually. The trouble is we just haven't received enough items from wives to give us a backlog.*

If wives of readers would get in a creative writing mood and send us some contributions, we'd be only too glad to get going with a special section of, by and for les girls.

Address your contributions or inquiries to: "House Distaff" editor, RESIDENT PHYSICIAN.

Perrin H. Long, M.D.

Editor's Page

The Doctor in the Drug Company

Recently, a friend asked me the following question: "Why do doctors go to work for drug companies?" In this particular instance my friend referred to an individual who was a mutual acquaintance. Yet, this was not the first time the question had been asked of me. The entrance of physicians into the pharmaceutical industry has always been a source of speculation to many doctors and lay people. I had given it considerable thought because more than twenty years ago I had considered entering the industry; some very old friends of mine are physicians employed by pharmaceutical companies.

Let's consider who the doctors in the industry are. They are graduates of Hopkins, Harvard, Duke, Wisconsin and other top schools. Many have been successful practitioners or clinical investigators. A number have been on the faculties of medical schools. Some have been professors.

Why did they enter the industry? I want to make it clear at the outset that money alone is rarely the

reason for a doctor's acceptance of employment in a pharmaceutical company. When all is said and done about the money angle by practitioners and others, one has to realize that in this day and age the salaries of doctors employed by the companies are not in excess of what many of these physicians could make in the practice of medicine. And many of these salaries are definitely lower than the people who receive them are capable of earning in practice.

Since it is not money, what does motivate these physicians? Well, to begin with, life within a top-flight pharmaceutical company is exciting and stimulating. These companies spend hundreds of thousands, even millions of dollars on research, and most of the larger companies always have something "cooking." Biologists, physicists, chemists and other scientists are employed in pharmaceutical research, thus providing the possibilities of an environment of intellectual ferment and stimulation for the physician in the pharmaceutical industry. It's fun to be in such an environment and very satisfying to be identified with the early development of a life-saving or life-promoting agent.

Most of the physicians I have known in the pharmaceutical industry are outgoing, dedicated individuals who are interested in and derive pleasure from doing something for humanity, their colleagues, their friends, and their companies. They are enthusiastic in demonstrating their new products to you, but by the same token they are quick to help you if you run into difficulties with one of their established products.

Some physicians have entered the industry because of a physical handicap for which a fairly well regulated life seemed indicated. The pharmaceutical industry provides positions having regular hours, posi-

tions of responsibility in which physicians can do a worthwhile job in medicine without jeopardizing their health.

While many physicians in the industry supervise or coordinate research programs, the number who are directly working in research fields is not too great. Despite this, it can be said that a number of very useful products in medicine have been developed by doctors working in the industry. Ephedrine, meprobamate and rauwolfia products are good examples of this.

Finally there is a small group of physicians associated with the industry whose fathers and grandfathers before them were pharmaceutical industrialists. This is especially true in certain companies that are family owned.

Thus, when all is said and done, doctors probably enter the pharmaceutical industry for the same reason that other doctors "go into" medicine, surgery, teaching or research; because it interests them and offers a satisfying way of life.

Perrin H. Long.

Nearly every resident contemplating private practice has need of information plus a quantity of cash . . .

$omething To Bank On

Philip L. Azoy

Diamonds are a girl's best friend. So advises the lyric from a whimsical offering in a Broadway musical.

Considering its origin, we are at liberty to believe or disbelieve the statement.

Yet, another statement which has a bit more to support its credibility is: A banker can be a resident's best friend.

Financially speaking (and what a pleasant way to talk) the resident getting set to launch his own practice will find he needs much more to bank on than his professional training and his zeal.

It takes money to buy into or equip a private practice. Big money. And few residents of today can crack the nut without some assistance.

This is where the bank comes in.

When you have picked out your prospective practice location—or perhaps even before you make your selection, you would be wise to visit the local bank and introduce yourself to one of the officers.

Keep in mind that the bank is a source not only for loan money but for information on the locality, practical information about the economic health of the community.

In small and middle-sized towns the bank is both the guardian of liquid assets and the eyes and ears of the community and its people. Banks handle much of the money belonging to the town's industries and individuals; bankers know the characteristics, the habits, the

strength and weakness of their areas.

In larger cities, it is true, the banker's relationship with a community may not be quite so close, But he still can be useful because what he does know is the kind of information that few others in the community could possibly know.

Advice

Besides making the doctor a loan and opening a checking account for him, the banker can tell the doctor, perhaps, where there is a good neighborhood to start his practice. He can suggest a good real estate agent or builder for a house. Unofficially, the banker can advise on merchants, plumbers, town big shots, worthwhile organizations and even town taboos. He can equip the doctor with letters of introduction. For once it is known that you have the bank on your side, few will doubt your word—or your check.

For such reasons you, a doctor, should acquaint yourself as well as possible with the banking system. After all, in one way or another, you will be dealing with it all your life.

As a careful man you will want to put your money in safe banking hands and as a busy man you may not be able to give it your full attention. So, later in life, when your earnings are large, you may want the banker to help you administer a trust or advise you how to invest.

Banking, itself, is a broad, billion-dollar subject. Yet, let's see if we can point out some of the ways in which a bank can help you and some of the operations of banks which most affect you.

State and national

In the United States there are three general types of banks—commercial banks, savings banks, and trust companies. (Then, of course, there are the Federal Reserve Banks which can best be described as bankers' banks.)

Some banks are state-chartered. Others are called national banks which means they come under the aegis of the U.S. Comptroller of the Currency. All national banks belong to the Federal Reserve system (more about this later) and the Federal Deposit Insurance Corporation. State banks do not have to belong to the Federal Reserve system, but most do.

In choosing a bank, pick one that is covered by the F.D.I.C. for this institution guarantees deposits in any of its member banks up to $10,000 for each customer. That puts the credit of the Government right behind your deposit. (This does not mean that non-members are unsafe; but the F.D.I.C. is an added safety margin.) F.D.I.C. member banks will display their membership status prominently on a sign in the bank.

Differences

Differences between commercial, savings and trust institutions are quite pronounced and you should know them.

Commercial banks are concerned with checking accounts—important because this is a nation that lives by the checkbook. And while they charge service fees for handling most checking accounts, commercial banks earn the bulk of their keep by making business and personal loans. Many maintain savings accounts, too. Here they compete directly with the savings banks whose main purpose is to build up a large number of savings accounts and then make *long-term loans* with the money — mortgages, business loans, etc.

Just from this short description you can see that the functions do overlap. However, because of the fast turnover in their deposits, commercial banks generally are not able to make as many long-term loans as savings banks, whose deposits are more stationary. Laws as to the amount and types of loans each can make help differentiate the two types of banks.

The third type—the trust company —is something else again. Here there is overlapping because many commercial banks have trust departments. But the job of the trust company (or trust department of a commercial bank) is to act as executor, trustee, guardian, custodian etc., also investment advisor.

In the case of the corporate customer, trust companies act as registrar and transfer agent for stocks and bonds, an operation designed to insure that the securities are issued in proper amounts and transferred to the proper persons.

Officers

When you move to a town or city first pick out a commercial bank or a bank branch convenient to where you expect to live or have your office. Discuss your needs with one of the officers. Don't demand to see the president; in the case of small town banks he is often a figurehead, a local businessman named president for prestige purposes. A vice president or a younger officer can help you as much or more. Remember, just as in most other cases, a pleasant relationship will depend as much on your own personality as the banker's. Bank officers, generally, are cooperative, eager for business, funds of information, well-educated, practical, somewhat cautious, underpaid but very highly respected.

Since you are not General Motors, don't be surprised if the banker won't loan you thousands of dollars. You will be asked lots of questions, references, financial obligations, etc.

Don't be niggardly or shy about giving information about yourself. Banks have ways of finding out as much about you as they want. Moreover, bank's records are confidential and to the banker you are just another "patient."

On account

Naturally your first move should be to open an account. You will be asked whether you want a regular

or a special checking account. A special checking account requires a small charge for each check cashed—perhaps ten cents a check—plus a small monthly service charge of about thirty-five cents. No minimum balance is required, that is, you can draw on all your money if you wish.

However, many big city banks will cash special checks only at the branch where the account is kept, which could prove inconvenient for you (not for your creditors because they cash your checks the regular way).

Regular checking accounts are different; they require that a minimum balance be kept on hand at all times. Also, the monthly service charges are based on *the size and activity of your account.*

If you can afford to keep a minimum (the amount varies widely between small city and big city banks) by all means have a regular account. It has several advantages. In the first place, you will know that you always have money in the bank and secondly regular checks are honored much more readily. Psychologically, regular accounts are better for any type of business enterprise, your office account, for example. Your creditors know about the types of accounts; bills paid with regular checking account checks denote "money in the bank."

Incidentally, the amount of money in your account and the promptness with which you meet your obligations—at the bank and elsewhere—will help establish the all-important line of credit. This is a term embracing the amount of money which a bank may be willing to lend an individual or a firm at a given time, and is based on a careful analysis of an applicant's financial position and personal attributes.

Collateral

As a new customer, and a new doctor, you may be in a hurry for the equipment loan you need. At the same time you may be hesitant about asking. Don't worry, because an equipment loan, or an automobile loan or a mortgage on a house is a *secured* or *collateral loan.* This means that the money you are borrowing is secured by the object purchased with the loan. If you don't pay your loan installments on time and can't offer adequate explanation your equipment may be repossessed by the bank. The bank will then resell it to get its money back. Often the banks take out insurance on the life of the borrower in the amount of his loan. Banks lose occasionally on the loans they make, but not often; the borrower who defaults stands to lose a great deal more—his credit.

Collateral loans carry lower rates of interest than unsecured obligations—such as personal loans—because they are generally safer. However, banks are willing to make personal, unsecured loans to responsible customers with steady incomes

or the prospects of good income. Besides higher interest rates, the repayment time or *term* of such loans may be shorter.

Late payment

If for some good reason you can't make a loan repayment on time—usually repayments are made monthly—don't panic and don't let the matter drag. Call the officer at the bank and explain the situation. Banks are eminently fair. Without intending offense to the butcher, baker and candlestick maker who probably need the money more, pay your bank loan payment first before your other bills.

If your bank credit is good you can always borrow money to pay your other creditors.

Knowing that doctor bills are traditionally paid rather late, your banker friend may suggest means of keeping your money flowing in. One doctor has a large sign on his wall: "Payments are requested as treatment progresses," thanks to a suggestion of his banker. This may be a good idea, for some treatment is prolonged. If the patient is allowed to put off payment for your treatment of him, you may have trouble collecting. He also may be bitter about a whopping big bill at the end of the illness, while the small monthly bills are not as hard to handle.

Perhaps a better way in a beginning practice is to arrange a schedule with the patient and forget the sign. Signs are rather abrupt notice, human nature being what it is. . . .

Probably your banker will advise you to collect your fees by check, where possible. Two reasons: 1) checks enable you to keep an accurate record of income for your own budgeting purposes and 2) the tax authorities do not often question a taxpayer if his income is clearly set forth and records are well kept. (One of the tax evaders' favorite dodges is to take payments in cash, and then declare only a small portion of the actual income.) However, by and large, doctors are generally wise enough to realize that cheaters don't often escape the consequences of their perfidy.

Safe deposit

As for safe deposit boxes, you will find them useful. For a few dollars a year, depending on the box size, you can have a reliable storage place that is fireproof, burglarproof, waterproof. Considering the depredations of small childen and the waste disposal fetish of some wives, you need a good place to store insurance policies, birth and death certificates, precious jewelry, medical school records. Remember, many valuable documents can't be duplicated easily.

Here are some other important services of your bank:

Certified Checks. Sometimes a creditor may demand payment with a certified check. This simply means

an officer of the issuing bank signs the check to certify that the face amount is in the account. (Better ask for this when selling a house, car, or other big item.)

Christmas Club (or Vacation Club). A nation-wide organization whose services are used by many banks. An account of this nature bears no interest but is a useful method of forced saving. You make regular deposits, which (except for an emergency) can't be withdrawn until a few weeks before Christmas. This is a good idea if money has a tendency to find holes in your pocket.

Travelers Checks. Useful whenever you take long trips or to out-of-state conventions. As you know, anyone who carries a wad of bills while traveling is fair game for a variety of crooks. The travelers check system is simple—for a small service charge you exchange cash for travelers checks in various denominations. You sign each check in the presence of the bank officer, and then you sign once again when you cash the checks. In other words, the signatures must match. Banks, gas stations, motels, and hotels will accept the checks readily. If they are lost you merely report to the nearest office of the issuing bank. If it's a big bank it will have its own checks, but if not, the bank may use American Express travelers checks.

Letter of Credit. Especially useful if you travel in a foreign country. Example: You visit another country and present a letter of credit from your bank to a foreign bank. In effect, this states that you are entitled to draw up to the value stated in the letter, in the foreign currency. The foreign bank then charges your home bank with the amount. Although used mostly commercially, the letter of credit is popular with travelers who need large amounts of cash available during their trips but don't want to carry it with them.

If for some reason your commercial banker cannot fulfill all your needs—say a mortgage on a house—he probably will refer you somewhere else, perhaps to a savings bank or to a savings and loan association. Remember, he is there to help you.

University of Alabama Me

The University of Alabama Medical Center offers 54 internships, 155 residencies in 16 specialties. Through an integrated hospital program, both private and service patients are included in a teaching plan embracing 1300 hospital beds and 26 outpatient clinics.

One of the fastest growing hospital centers in the country is the University of Alabama Medical Center in Birmingham, Alabama. Already a major general health care and educational activity, rapid development is taking place under rather unique circumstances.

The parent institution in the residency training program is the 17-story, 600-bed University Hospital and Hillman Clinic. Other units of the Medical Center as it exists at present include the Medical College of Alabama, the University of Ala-

Medical Center

bama School of Dentistry, the University of Alabama Birmingham Extension Division, a 500-bed Veterans Administration Hospital, a 100-bed Crippled Children's Clinic and Hospital and the Jefferson County Public Health Department. The 66-bed Children's Hospital is located nearby and is playing its part in the Center's current expansion.

The unique circumstances mentioned involve negotiations through which the University of Alabama Medical Center is in process of acquiring ten and one-half additional blocks of property adjacent to its existing buildings in downtown Birmingham.

The fact that this land is available is in itself somewhat unusual, especially in a large city. Health planners interested in expanding facilities in most municipal areas must think in terms of additions to existing structures, going "up" or "out" for necessary space.

Construction

In addition to acquisition of the land, present plans call for con-

struction of a new research building to begin soon at a cost of more than $2 million. An addition to the Medical Center Library is now under construction which will house the Reynolds rare medical book collection. Dr. Reynolds, a native of Alabama and presently chief radiologist and chief of staff at Harper Hospital, Detroit, Michigan, donated his valuable collection to the University of Alabama Medical Center.

In the immediate future, a new 120-bed Children's Hospital will be constructed within the Center. Renovation and expansion of the present five University Hospital buildings also continues.

A residence for female students, other dormitories, and an ambulant patient center are also in the preliminary stage.

These activities follow the pattern of growth and expansion which

Parent institution in the Alabama residency program is the 17-story, 600-bed University Hospital and Hillman Clinic. Of the beds, about 250 are operated as staff beds and 350 as private. There are 90 bassinets for care of newborn. Pictured at right, Dr. Richard Harris, resident physician, handles a night duty assignment in the emergency clinic.

has been characteristic of the history of the young University of Alabama Medical Center.

Hillman Hospital

As the first unit of the Center, in its present location, the University Hospital and Hillman Clinic had its historical origin in 1888 in the founding of The Hospital of the United Charities by a group of public-spirited Birmingham women. This "Board of Lady Managers" opened and operated the hospital in temporary rented quarters in the downtown section of the then very young city of Birmingham. The first permanent hospital was erected in 1890 and operation of the hospital was later assumed by Jefferson County.

A gift of $20,000 had been made by Mr. T. T. Hillman, President of the Tennessee Coal, Iron and Railroad Company, and in his name a new Hillman Hospital building was started in 1902. This building still remains a part of the University Hospital.

Through the years, other buildings were added to the Hillman Hospital including a wing in 1928, a nurses' residence in 1928 and an outpatient clinic building in 1938. In 1941 the Jefferson Hospital building was constructed.

University affiliation

In 1945 an agreement was made between the University of Alabama and Jefferson County setting up Jefferson-Hillman Hospital as part of the University in connection with the establishment of a four year

Medical College and later, School of Dentistry.

In May of 1955 the name of the institution, which in 67 years had grown to one of the largest University Hospitals in the South, was changed to University Hospital and Hillman Clinic.

The interim period following affiliation as part of the University has seen construction of a building to house the Medical College and School of Dentistry, the Birmingham Extension Division, the Veterans Administration Hospital, the Crippled Children's Clinic and Hospital and the Jefferson County Public Health Department as well as remodeling of other buildings for activities such as a large psychiatric clinic and speech and hearing clinic.

Organization

Operating as a full division of the University of Alabama, the hospital administration is responsible to the University's Board of Trustees through the president of the University and a vice-president for health affairs. Coordinating the clinical care are chiefs of service who are concurrently chairmen of departments of the medical college.

Residency programs at the University of Alabama Medical Center are conducted by the Medical College and School of Dentistry on a cooperative basis with University Hospital.

The associate dean of the Medical College or School of Dentistry, and an assistant administrator of the Hospital work closely with the services on administrative matters concerning the resident programs. Clinical education and other professional development areas are the responsibility of the respective services.

Location

The most centrally located large city in the South, Birmingham is the commercial and industrial center of Alabama. The present metropolitan population is over 600,000—the third largest in the Southeast. It is the shopping capital for a radius of 100 miles.

University Hospital is located in the heart of the Medical Center, about six blocks from Birmingham's main downtown district. As an integral part of the city, it serves as a major health care referral center for Birmingham, the whole of Alabama and parts of surrounding states.

Birmingham is usually said to enjoy an "exceptionally good climate." It has altitudes ranging from 600 feet to over 1200 feet. Mean monthly temperature of the warmest month of the year has been 80 degrees, and of the coldest month, 46.4 degrees.

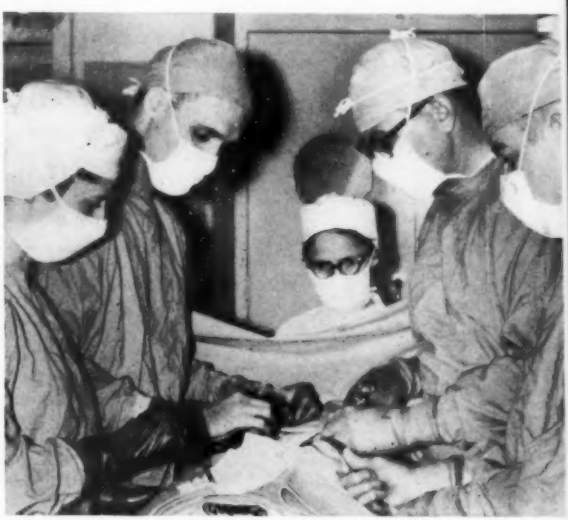
Referral center

University Hospital is a 600-bed acute, general teaching hospital with patients assigned according to specialties and subspecialties. There are 90 bassinets for the care of the newborn.

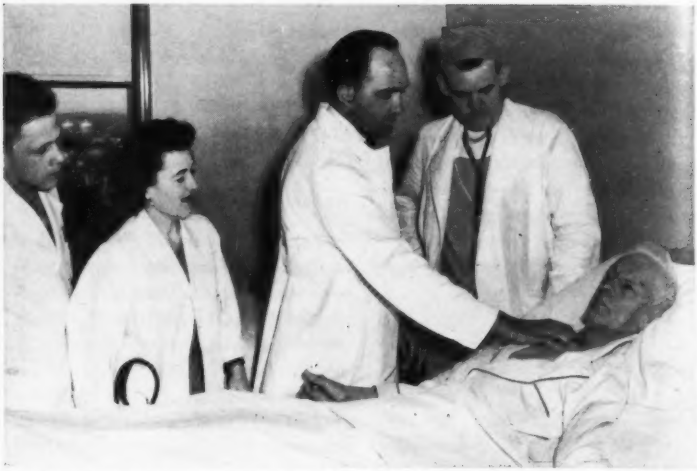
Of the beds, about 250 are operated as staff beds and about 350 as private beds.

Almost all private patients participate in the teaching program.

University Hospital is the primary



At left, technicians are shown in the bacteriology lab at University Hospital. Skilled assistants aid residents in general surgery (right) on operating team.



Faculty physicians make regular rounds, conduct conferences and offer diagnostic assistance and advice in management of private teaching patients and staff patients. Here, a faculty physician, resident and interns make rounds on the staff service.

charity hospital for the Birmingham area; a large number of referred patients from throughout the state and from the adjacent southeastern area also depend upon the staff for health care.

Last year, there were approximately 26,000 adult and approximately 5,000 newborn admissions to the hospital. A total of 193,247 days of care were rendered with an average patient stay of 7.4 days.

Outpatient activities included more than 135,000 visits to the 26 different outpatient and emergency clinics conducted daily. All patients are available for teaching. In the dental area, an index as to the magnitude of work accomplished by the School of Dentistry is available in the more than 40,000 patient visits made last year to the Dental Clinic alone.

Clinical

University Hospital draws upon one of the most extensive and varied areas of clinical material in the country. Resident physicians training here agree that this is one of the strongest advantages of the training program. As the largest hospital in the state and as the main referral center for the region, the hospital places major emphasis on securing and maintaining the most modern equipment for use by staff members in the treatment of their patients.

Special services such as cardiac catheterization, blood vessel bank, bone bank, irradiation therapy, eye bank and others are maintained.

Integrated program

The residency program is on an integrated basis with the University Hospital serving as the central unit. Residents in medicine, surgery, neurosurgery, urology, pathology, radiology, and neurology serve on a six-month staggered rotation in the University Hospital, Veterans Administration Hospital and the Crippled Children's Clinic and Hospital.

Pediatric residents rotate regularly through University Hospital, Children's Hospital and the Crippled Children's Clinic and Hospital.

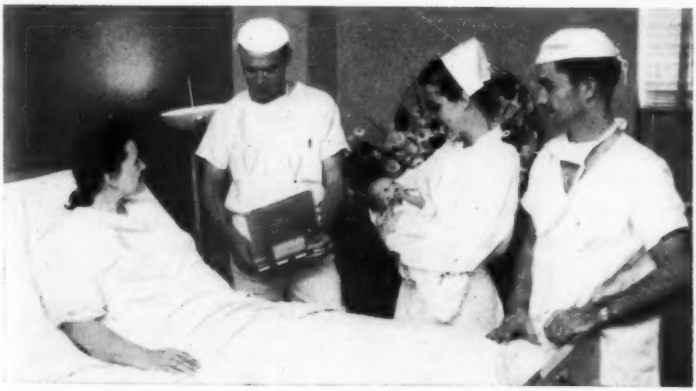
Residents in orthopedic surgery serve a six-month staggered rotation in University Hospital, Veterans Administration Hospital and Crippled Children's Clinic and Hospital.

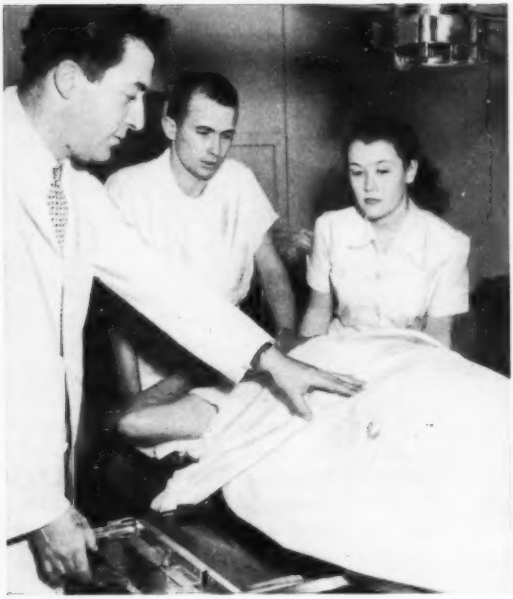
All residencies are approved by the Council on Medical Education and Hospitals of the American Medical Association, the American Dental Association (where applicable) and the specialty board in each field. The hospital is accredited by the Joint Commission on Accreditation of Hospitals as well as all other accrediting bodies.

Other programs

University Hospital offers 36 rotating, 12 straight medical and 6 straight pediatric internships. The schedule includes four months each of medicine and surgery and two months each of obstetrics and pediatrics. Two months elective serv-

Nearly 5,000 newborn were cared for at University Hospital last year. Here, Dr. Clark Gravlee, Ob-Gyn resident, joins intern and nurse in congratulating happy mother.





Dr. Alvaro Ronderos, resident in radiology, instructs students in positioning, using modern x-ray equipment.

ice may be taken from this schedule.

In addition to its large School of Nursing, University Hospital maintains schools for laboratory technologists, radiological technologists, and nurse anesthetists. A dietetic internship is soon to be initiated. Future plans call for other health discipline educational programs necessary to assist in meeting the critical health needs of the state.

There is maximum participation in the postgraduate educational programs in the medical specialties and adjunct sciences.

Training programs are conducted for hospital administrators, practical nurses, and medical record library technicians.

Educational activities

Formal programs of resident instruction vary according to service. On each service there is an organized training program consisting of rounds, conferences, demonstrations, lectures on special subjects and journal club meetings for all grades of house officers. There are frequent seminars, including postgraduate training, under Medical Center and University auspices, which are open to the house staff.

Coordinated activities of the clinical teaching programs and the hospital offer distinct advantages. There are approximately 75 members of the full-time teaching faculty who conduct the training programs. In addition, 250 part-time voluntary faculty members who are active members of the University Hospital staff participate in these programs. The total staff at University Hospital includes 420 physicians, dentists and consulting scientists. Voluntary faculty members make regular rounds, conduct conferences, and offer diagnostic assistance and advice in the management of both private teaching patients and the staff patients directly under the residents' care.

In both inpatient and outpatient activities, the resident assumes major responsibilities, particularly in the care of staff patients. In the

RESIDENCY INFORMATION

University Hospital and Hillman Clinic
The University of Alabama Medical Center

SERVICE	CHIEF	RESIDENCIES 1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	Total
Anesthesiology	Alice McNeal	2	2	—	—	4
Dental Surgery	Joseph F. Volker	2	2	2	—	6
Dermatology & Syphilology	Ray O. Noojin	1	2	1	—	4
Internal Medicine[3]	Tinsley R. Harrison	14	11	9	4	40
					2 chief	
Neurology[2]	Wilmot S. Littlejohn	1	1	—	—	2
Neurosurgery[1]	J. Garber Galbraith	—	—	1	1	2
Obstetrics & Gynecology	W. Nicholson Jones	4	2	2	—	8
Ophthalmology	Charles P. Grant	—	2	2	—	4
Ophthalmology	Stephen J. Kelly	—	2	2	—	4
Orthopedic Surgery[2]	John D. Sherrill	3	5	0	—	8
Otolaryngology	Frank S. Moody	1	1	1	—	3
Pathology[2]	Joseph F. A. McManus	2	4	3	—	9
Pediatrics[3]	Kendrick Hare	6	6	—	—	12
Psychiatry	Elmer L. Caveny	2	2	2	—	6
Radiology[1]	J. Garland Wood	3	3	3	—	9
Surgery[1]	Champ Lyons	14	12	6	4	36
Urology[1]	Bruno Barelare	2	1	1	—	4

[1] Rotate through University and Veterans Administration Hospitals.
[2] Rotate through University, Veterans and Crippled Children's Hospitals.
[3] Rotate through University, Crippled Children's and Children's Hospitals.

broad range of outpatient and emergency clinics under the general supervision of full-time or voluntary faculty staff members, residents and interns see staff patients and make determinations regarding management of patients as outpatients or effect admission and proceed with care on an inpatient basis. The degree of responsibility assumed is largely dependent upon the individual capabilities of the resident or intern.

The regular Saturday two-hour clinico-pathological conference follows the two-hour combined medical-surgical conference. These conferences are attended by staff, house staff and students.

Research opportunities

A wide range of research and investigative studies are in progress in the Medical Center, many of which are available to the resident and intern.

Upon completion of the new research building, it is anticipated that the already large program of research activities will be more than doubled. Acceptance of a grant for expansion of cardiovascular research has caused the enlargement of such programs even before construction of the building. Use of the building will make hospital expansion possible, especially for the ancillary services.

In addition to the research program mentioned, other study activities include cancer, arthritis, dermatology, endocrinology, hematology, cardiology, neurology, ophthalmology, psychiatry, speech and hear-

Residents utilize facilities of Medical Center Library for reference and reading.

Separate lounge facilities are available to men and women members of the house staff on the 15th and 16th floors of University Hospital and Hillman Clinic.

ing, and in all other major clinical areas.

The basic science laboratories of the Center are available to residents and interns for work including completion of requirements for board certification in some of the specialties.

Library

An excellent medical library containing more than 55,000 volumes and periodicals is maintained in the Center. Under the guidance of a full-time, trained library staff, source material for study and investigation is readily available.

The addition to the main library now under construction is the first part of a completely new library building.

Appointments

Residents are appointed by the

RESIDENT STIPENDS

	Year of Residency				
	1st	2nd	3rd	4th	5th
Rotating	$1312	$1640	$1967	$2592	$3042
Non-Rotating	1300	1400	1500	2000	——
Obstetrics-Gynecology	1300	1527	1842	——	——

Residents are entitled to full maintenance consisting of room, board and laundry and are furnished clinical coats. A two-week vacation with pay is provided.

chairmen of the clinical services; applications should be submitted to them. Interns are employed by the hospital upon recommendation of the Internship Committee composed of chiefs of the major clinical services and administrative officials.

The hospital participates in the national matching program for interns. Upon completion of the intern period of training, the physician receives a certificate signed by the various officials concerned attesting to the satisfactory completion of service. At the present time, the stipend for interns is $1200 per year. Interns also receive full maintenance and are entitled to one week of paid vacation.

Housing

Male residents and interns are pleasantly housed on the sixteenth floor and female house staff members on the fifteenth floor of the main hospital building. Both floors have a lounge area with magazines and television available. There is a game room for male house staff members.

Adequate provision is made for bed space for all residents and interns on service at University Hospital. For those choosing to live out, low-rent apartments are available either in the Medical Center through the Medical Center Business Office or within a few blocks of the Center through the Birmingham Housing Authority.

One of the most desirable assets of the city is its residential section. For those wishing to live away from the medical center, very desirable apartments or housing are available; an automobile is desirable.

A House Staff Office is maintained by the Hospital for the purpose of assisting with housing and other problems.

Dining facilities

A staff dining room is maintained adjacent to the main cafeteria on the second floor of University Hospital. The aim in this area is to provide adequate, well-prepared meals in pleasant surroundings of sufficient privacy for clinical problems to be discussed without interference.

Recreation

Recreational facilities within the Medical Center proper are not extensive but there is plentiful recreation within easy distance.

Both municipal and private pools, golf courses, tennis courts, and parks are close by the Center. There are year-round scheduled football, baseball, basketball and other college, professional and amateur sports events. Lakes and streams for fishing and relaxation are in abundance in or near Birmingham. Many residents and their families spend some time on the Gulf Coast, which is less than 250 miles away, and in the cooler mountain areas closer to Birmingham.

The city offers attractive clubs for social activities.

Religion and culture

Birmingham is famous for its emphasis on religious life. Although no formal religious life is conducted as such in the Center, friendly and beautiful churches of every denomination and creed are located nearby and residents are encouraged to take part in their activities.

There is a very fine public library system; a civic symphony, art museum, theater and ballet groups, and an outstanding series of musical programs are available in the city.

Other benefits

Residents are entitled to two weeks paid vacation and a one week paid vacation is available for interns. Sick leave and military leave with pay are granted through concurrence of the chief of service and the Hospital administrator.

House staff members receive full hospitalization at no cost and a discount is provided for members of their families.

Dr. and Mrs. Robert Fitzgerald at home with their daughters in University Medical Center apartment. Dr. Fitzgerald is a resident in general surgery.

Parking is limited at present as it is in most major cities; however, a parking lot is provided on the hospital block for the medical staff and part of the house staff. Another lot for the remainder of the house staff is maintained nearby. It is anticipated that additional parking facilities will become available soon after the pending land purchase is completed.

As a health, industrial and business center, Birmingham offers many opportunities for full- or part-time work for wives of residents or interns. The hospital personnel office is always available to assist in making proper placements.

What Price Education?

No other form of higher education is as expensive as medical education . . . longer periods of training, expensive equipment, higher ratio of teachers to students, new and complicated teaching techniques; these and many other factors are responsible for the startling cost of training tomorrow's doctors.

In most cases the medical schools will consume 30% to 40% of the budget of the parent university yet enroll less than 10% of the students.

The medical student meets only 1/5 of these costs through his tuition in spite of the fact that it is usually the highest tuition asked by the university.

—From *"Progress Report 1956-1957"*
The American Medical Education Foundation

Matthew F. McNulty, Jr.

Guest Editorial

The Critical Shortage of Health Personnel

Much has been written concerning the community health problem resulting from the ever growing shortage of qualified hospital personnel. The shortage is surpassed only (and by no means always) by the need of adequate financing for health care.

This health personnel shortage is of concern to everyone interested in the care of the patient, from the staff physician and resident who provide direct clinical care, to the hospital administrator who in the name of the trustees assumes general legal responsibility for the institution. It is, of course, of ultimate concern to the reason for their efforts—the patient.

The shortage is a real factor in both quantity and quality of care which can be rendered by the physician, either as a resident in the hospital or later as a busy practitioner.

Two areas in which the personnel shortage may be cited as most serious are in nursing and laboratory technology. Other health fields offer equal examples; but in all hospitals, from the very small to the largest, nursing and technologist shortages usually represent a con-

MATTHEW F. McNULTY
Administrator
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Hospital Administration
University Hospital
and Hillman Clinic
University of Alabama
Medical Center

sistent pattern. Nurses and technologists are also of most direct concern to the resident both now and later. Reasons for these shortages are varied and fairly well known. They bear repeating, if only to underscore the fact that they exist and to insure some common understanding of the factors underlying the problem.

As one facet, it is becoming more and more difficult financially for hospitals to maintain training schools. With the body of necessary knowledge increasing, students spend less time in service and proportionately more time in educational activities. Upon graduation, the former students tend, in many instances to choose employment at other institutions. In some cases it would seem that those recruiting institutions which operate without the burdening cost of education thus have the financial resources to pay higher salaries. Or perhaps, "the grass just looks greener. . . ."

This is discouraging to the "parent" or training hospital and has caused some institutions to drop their educational programs altogether. Consequently, the burden of education for the health disciplines becomes more and more the responsibility of large hospitals.

Unfortunately, there is a time lag in this shifting process. Facilities, financing and other resources available to most health centers are at present, inadequate to meet the increasing burden.

The fields of commerce and industry have had an influence by opening a wide range of positions for the people who might otherwise have sought education and training for a health discipline. Salaries and other benefits are available without the long and rigorous training

required in the health field. Then, too, these same business firms employ a fair share of persons trained in the health professions to staff their own health programs.

Demand for health care by the public continues to increase. Construction of new facilities in which this care is to be provided goes on at an accelerated pace. It is true that more personnel are being trained, yet the gap between demand and supply grows wider. The results seem quite foreseeable. Too few adequately trained people cause both quantity and quality of patient care to suffer. Of course a large segment of the population does get better care than ever before. But lack of sufficient skilled hands leaves undone many things which could be done. The old story of the midwestern farmer puts it another way when he says "I'd just like to be able to farm as good as I know."

The solution to these needs is not so evident. Rapid expansion of educational programs would offer a long-range answer. However, even if expansion of facilities, faculty and students were immediately possible, it takes time for courses to be completed. Implicit in such an approach is the necessity for provision of facilities and financing of programs, recruitment of additional trained and experienced faculty, securing of an adequate number of motivated and qualified students and finally, raising funds to provide salaries and benefits which would challenge the student to complete the educational program and remain a productive worker in the field.

If expansion of educational programs is to offer an answer even on a long range basis, then there is a need for understanding and combined effort on the part of all health groups—for it is the physician, dentist, nurse, dietitian, technologist, administrator, trustee and all other health personnel working together who can best and most

effectively secure public interest and public understanding.

This effort might well take the immediate direction of encouraging financial support of educational programs, assisting in the recruitment of students, stimulating qualified persons to assume responsibilities in teaching and offering encouragement and constructive help to those people already in or entering the health fields, in order that their services may become more valuable. Cooperative emphasis is necessary for "recruiting" from the reservoir of trained people who have left the field.

Development and utilization of less highly trained and skilled personnel seems to be a necessary alternative to "wringing of hands." If the present trends continue, it seems possible to foresee the time when having a nurse in the physician's office may mean depriving his hospital patients of necessary nursing service. Adapting to the use of less skilled assistance is difficult in an era when the body of scientific medical knowledge is so rapidly expanding. But, again, it seems necessary. However, though distressing and difficult when measured against the farmer's "as good as I know" standards, such adaptation seems one of the few possible solutions to meet "quantity" created by growing demands for health care.

Resident physicians can offer material help in this battle against health personnel shortages not only by accepting but also by assisting in the transfer of "nonprofessional" activity to "nonprofessional" hands.

No one is more vitally affected by this problem than the resident physician. Presently an educator and graduate resident physician in the hospital, and as the practicing physician and specialist of tomorrow, the resident is in a unique position of leadership and responsibility. His efforts toward both understanding the problems and lending constructive support will play a great part in achievement of a solution.

Clinico-Pathological Conference

University of Alabama Medical Center

Clinical summary

This 55-year-old colored female was admitted to University Hospital and Hillman Clinic for her fourth and last time October 12, 1956, in a moribund state.

The patient was first seen in July 1952. History revealed that she had been in good health until February 1952 when she developed "flu." Treated with antibiotics, the acute episode subsided; however, she continued to have a chronic cough, productive of thick yellow sputum with paroxysms of coughing occurring usually during the night.

Two weeks prior to admission she coughed up two to three tablespoonfuls of dark red blood followed two days later by massive hemoptysis of one-half to one pint of bright red blood. She was admitted to a private hospital where she received blood transfusions with some improvement. She was then transferred to the University Hospital for further evaluation of her lung disease.

Physical examination

Blood pressure 94/60. Pulse 104. Respiration 20. Positive physical findings included crepitant rales in the right apex and left base of the chest. There was a grade 2 systolic murmur at the apex with no cardiac

Conference

Discussant: **Professor Tinsley R. Harrison, M.D., Chairman of the Department of Medicine, Medical College of Alabama.**

Pathologist: **Dr. Joseph F. A. McManus, Professor and Chairman, Department of Pathology, Medical College of Alabama.**

enlargement. The liver and spleen were not palpable.

Laboratory data

The Mantoux Test was weakly positive. EKG: normal. Chest x-ray showed extensive soft, hazy, patchy infiltration throughout both lung fields. A later film revealed complete consolidation of the right middle lobe of the lung. A right supraclavicular fat pad biopsy showed "numerous hard tubercles, consisting of a few giant cells at intervals. There are hemosiderin macrophages present, but no tubercle bacilli are seen." Total serum protein 11.6 gm %; albumin 4.5 gm %; globulin 7.1 gm %. A repeat total serum protein was 13.6 gm %; albumin 4.5 gm %; globulin 9.1 gm %. Vital capacity 1.2 liters (39%). Sputum studies were negative for acid fast bacilli and fungi.

Course

The patient was discharged and seen at monthly intervals until September 1952. At that time further studies for pulmonary tuberculosis were negative. In September 1952 the patient had an episode of acute arthritis of metacarpophalangeal joints of the right hand. Following this she did not keep her return appointment and was next seen in June 1955 with a history of having been in a local hospital in May 1955, three weeks prior to this visit, with hemoptysis and swelling of the ankles; she had been placed on digitalis. Physical examination at this time showed a blood pressure of 160/80. Pulse 70. The heart was not enlarged and no murmurs were heard. The liver was palpable two finger breadths below the right costal margin. There was three-plus pitting edema of the lower extremities. She was maintained on digitalis, a low salt diet and diuretics. She was seen at intervals in the outpatient clinic; on September 20, 1955, the total serum protein was 10.7 gm %; albumin 3.65; globulin 7.05.

Third admission

In January 1956 the patient was again admitted to the hospital with a history of increasing shortness of breath, dyspnea on exertion, paroxysmal nocturnal dyspnea and massive swelling of the ankles of three weeks duration.

On examination the patient appeared chronically ill and was very dyspneic with tachypnea. The neck veins were distended and the breath sounds were decreased over the right lower lung field posteriorly where fine crepitant rales and a pleural friction rub were heard. The precordium was hyperactive, P_2 was accentuated and loud, and a grade 3 systolic murmur was heard at the apex. The liver extended to the level of the umbilicus and the spleen was firm and palpable three finger breadths below the left costal margin.

There was marked ascites and

varicosities of the lower extremities. The venous pressure was 240 mm saline. Circulation times: Arm to lung, 28 seconds; arm to tongue, 35 seconds. Total serum protein 8.85 gm %: albumin 3.9, globulin 4.95. Thymol turbidity, 14.4 units; cephaline flocculation, 4 plus; alkaline phosphatase, 8.0 (Bessey-Lowery Method — normal: 0.8 – 2.9 units). PSP: 33% excretion in two hours. BUN: 23.7 mgm %. Urinalysis: specific gravity 1.005; albumin two plus; microscropic, occasional WBC and innumerable gram negative rods.

The patient was treated with antibiotics, low salt diet, diuretics and digitalis and responded well. She was then managed in the outpatient clinic and maintained on digitalis.

Acute

In July 1956 the patient was readmitted to University Hospital with complaints of weakness, diarrhea, anorexia, marked dyspnea, orthopnea and increasing edema and ascites of three weeks duration. At this time she appeared both acutely and chronically ill, had marked dyspnea and orthopnea and deep cyanosis. Blood pressure 90/64. Pulse 42. The neck veins were distended and at the apex of the heart a grade 2 systolic murmur was heard, this being transmitted into the axilla and through to the back. The breath sounds were decreased throughout the lung fields and soft crepitant rales and a pleural friction rub were heard over the right lower lobe of the lung posteriorly. The liver extended to the level of the umbilicus and the spleen was again palpable three finger breaths below the left costal margin. There was a fluid wave in the abdominal cavity with shifting dullness, bilateral varicosities and three-plus pitting edema of the lower extremities and one-plus sacral edema. There was a small subcutaneous nodule at the site of the previous supraclavicular fat pad biopsy. An EKG revealed auricular fibrillation with bigeminy and a rate of 36. Digitalis was discontinued.

At this time, biopsy of the subcutaneous nodule revealed a stitch abscess.

Laboratory

Lab findings showed: PCV 50; calcium, 7.1 mgm %; phosphorus, 4.5 mgm %. Repeat calcium, 9.8 mgm %; phosphorus, 3.4 mgm %.

Total serum protein, 7.9 gm %: albumin 2.8 gm %; globulin 5.1 gm %.

Cephaline flocculation was two-plus at twenty-four hours and four-plus at forty-eight hours; thymol turbidity, 9.0 units; BSP 22.5% retention, and PSP 15% excretion in two hours (no dye excreted in 15 minutes). Urinalysis: specific gravity 1.010; trace albumin; microscopic, occasional RBC and WBC.

Pulmonary function studies were attempted at this time, but were unsuccessful. The patient was treated

for digitalis intoxication, given broad spectrum antibiotics and diuretics. Because of poor response she was started on large doses of Meticorten with INH and dihydrostreptomycin. Subjectively she responded dramatically but after ten days of therapy, patient refused all medications and left the hospital against medical advice. She was managed in the outpatient clinic, but her course was progressively downhill with cough, dyspnea, dizziness, pain in the chest and ascites.

Final admission

The final admission was October 10, 1956, the patient being semi comatose with marked dyspnea and rapid shallow respiration. There was ascites, hepatosplenomegaly, marked emaciation and cyanosis. Attempts to digitalize the patient were unsuccessful and she expired approximately eight hours after admission.

Clinical discussion

Dr. Harrison: We have for discussion today a problem which is not uncommon and which appears to be becoming more common, namely, that of an individual with a fatal illness involving multiple organ systems.

Four years before her death this Negro woman, in her middle fifties, had profuse hemoptysis which began some five months after the development of a chronic productive cough which seemed to follow a respiratory infection. When first seen she was in mild shock, rales were heard at the base of the lung and at one of the apices. She had a grade 2 systolic murmur.

On that admission the tuberculin reaction was weakly positive and the radiologist described "soft generalized pulmonary infiltration" and later "consolidation of the right middle lobe." At that time a supraclavicular fat pad biopsy was done and tubercles without caseation were found. On this admission the serum globulin values were 7 and 9 grams percent. Her vital capacity at that time was very low; so low we are almost certain of pulmonary disease because patients with cardiac failure will usually die before the vital capacity declines to 1.2 liters. No acid-fast bacilli or fungi were found in the sputum.

I assume that the diagnosis on this first admission was sarcoidosis on the basis of the microscopic findings and the high serum globulin. The question is whether sarcoid could explain the whole picture.

Possible causes

In view of the massive hemoptysis one has to think about the possible causes. Subsequent events appear to exclude some of the common causes such as carcinoma of the bronchus and pulmonary infarction. In a female patient one immediately thinks of three things: mitral stenosis, tuberculosis, and bronchiectasis. There is only slight evidence

in favor of each of these conditions.

Three and one half years before death, or about six months after the first admission, the patient developed what is said to be arthritis; it is not described in detail and one wonders whether the patient had 1) an unrelated arthritis, 2) the type of pain in bones and joints which occurs in people with pulmonary disease and is part of pulmonary osteoarthropathy, or 3) painful lesions in the bones of the hands as the result of sarcoidosis.

Enlarged heart

About a year and a half before death the patient again had hemoptysis, and, for the first time, ankle edema. This time heart murmurs were not found. The statement is made at this time that "the heart is not enlarged" — and that statement always amuses me. Cardiac enlargement is commonly based on x-ray evidence and the radiologists have always been the first to admit that they frequently cannot recognize the enlargement unless it is pronounced. The right ventricle enlarges forward and this often is difficult to detect.

When a patient has cardiac edema the heart is usually enlarged but constrictive pericarditis is sometimes an exception.

I doubt the statement that the heart wasn't enlarged but I would accept the fact that it wasn't enlarged by routine radiographic methods.

On the second admission the patient again had hemoptysis. Since there is evidence for sarcoid it might be mentioned that hemoptysis is not a common manifestation of sarcoidosis, at least in my own experience.

However, the patient does have two findings which are common in sarcoidosis: enlargement of the liver and spleen. It is true that people with right sided heart failure, which this patient apparently had, have enlargement of the liver. They rarely have an enlarged spleen, however, unless they have bacterial endocarditis or constrictive pericarditis. It is true that at autopsy the spleen weighs somewhat more than normal in persons with congestive failure but it is rarely large enough to feel, except under the conditions mentioned, in a person with simple congestive heart failure.

Therefore enlargement of the spleen in this patient is of much more significance than the enlargement of the liver which might easily be the result of right sided heart failure. It is noteworthy that the serum globulin is again markedly elevated.

The patient improved and eight months before death was again seen, this time having obvious overt cardiac failure. She is now having paroxysmal dyspnea and the problem is whether this is pulmonary or cardiac paroxysmal dyspnea. Patients with pure right sided heart failure have pulmonary rather than cardiac dyspnea. Cardiac dyspnea

is due to congestive edema of the lungs as seen in the patients with left sided heart failure.

In a patient presenting the obvious picture of right sided heart failure there is often a problem in deciding whether the individual has primary left sided heart failure with secondary right sided failure or whether there is a primary disorder of the lungs with a *cor pulmonale*. Here we have some important evidence for the latter. The circulation time is prolonged from arm to lung and is normal from lung to tongue. This is important because disease of the lungs does not ordinarily delay the movement of blood from lung to tongue. Disease of the heart with congestion of the lungs does prolong it.

There are two means by which sarcoidosis may cause heart failure; directly by invading the myocardium, or indirectly by extensive obliteration of the pulmonary vascular bed with consequent *cor pulmonale*. Both may occur in the same patient. A loud pulmonic second sound tends to confirm the suspicion that the patient has pulmonary hypertension.

Systolic murmur

She now has an hyperactive heart with a grade 3 apical systolic murmur. The murmur was present on the first admission, then disappeared, and now returns. Which of four possible causes of the systolic murmur is the most likely?

Was it the result of increased pressure in the pulmonary circuit, which frequently produces such a murmur?

Patients with mitral stenosis frequently have a systolic murmur in the pulmonary area.

Any patient who has right sided heart failure may have tricuspid insufficiency.

Or, is there mitral insufficiency either of the organic type due to rheumatic heart disease or relative to dilatation of the left ventricle?

The fact that the murmur is loudest at the apex excludes pulmonary hypertension as the cause of the murmur if the observation we are given in the protocol is correct. The disappearance of the murmur on the second admission is rather strong evidence against organic disease of the mitral valve. Likewise, the circulation times previously mentioned speak against organic mitral valve disease and against left ventricular failure with relative mitral insufficiency.

Collagen

On this admission the patient has ascites, the spleen and the liver have become more enlarged and there is now impairment of liver and kidney function. The patient also has urine loaded with bacteria indicating a urinary tract infection, provided the urine was examined as soon as it was obtained. There is obvious involvement of liver, spleen, heart, lungs, and kidneys. This im-

mediately suggests two other possibilities. One of them is the broad group of collagen diseases. If you have two "itises" you do not think seriously about collagen disease; with three "itises" you begin to think about it, and with four "itises" you give it very serious consideration.

There is no other evidence to support the idea of polyarteritis, lupus or some such disorder, but I mention it because multi-organ system involvement always should suggest the collagen group of disorders. Another possibility in a person with involvement of liver, spleen, kidneys, lungs, and heart is amyloidosis and I was rather surprised in going through the protocol to find that no one had done a Congo Red test on this patient. Perhaps it is in the record.

Dr. Marietta Crowder: It was never done.

Dr. Harrison: I am rather surprised because in a patient with hepatosplenomegaly, albuminura and elevation of blood pressure at times, evidence of renal failure, and a story that can be interpreted as chronic pulmonary infection, either bronchiectasis, tuberculosis or some fungus one certainly should have thought of amyloid in this patient as a serious possibility.

Three months before death the patient had mild diarrhea. I do not have any mental association between diarrhea and sarcoidosis but I do have a very definite association between diarrhea and amyloidosis. Intestinal amyloidosis is relatively common. I have neither seen nor read of sarcoidal involvement of the intestine sufficient to produce symptoms. Therefore the diarrhea makes we wonder again about amyloid disease.

Pulse

Three months before death pleural pain occurred. At this time, the patient has auricular fibrillation with bigeminy. I assume she had digitalis intoxication and evidently that is what the house staff thought also. It is stated that the heart rate is 36. I wish to introduce a note of disbelief. I have never seen a person with bigeminal rhythm with a heart rate of 36. That would mean an effective heart rate of 18 and people faint before the heart rate is that slow. I think what is meant is that the pulse rate was 36 and the heart rate was 72. That the heart rate was 36—I do not believe!

Dr. Crowder: The pulse rate was 36.

Dr. Harrison: All right. Now she has a low serum calcium. One would have expected it to be high because of the hyperglobulinemia. It is said that the renal function is impaired and the urine is described as having albumin and a low specific gravity but there is no statement about an attempt to achieve a maximal gravity. I was amazed at the absence of a statement about the blood urea nitrogen in this pa-

tient. This is important! If the patient had nitrogen retention we can account for the low serum calcium value despite the hyperglobulinemia on the basis of uremia.

Dr. Claude Holland: The blood urea nitrogen was 55.

Dr. Harrison: Now we have a logical explanation for the presence of a normal or low serum calcium despite hyperglobulinemia.

At this time the patient still has impaired liver and kidney function. She is given hormonal and antituberculous therapy and apparently improved temporarily. However, she soon dies with what appears to be final pulmonary failure.

Where there is disease of many organ systems I always think of Hodgkins disease, and allied lymphomas. There is no evidence for this; it is just one of the things we must consider when a patient presents a bizarre clinical picture characterized by remissions and by multiple organ system involvement. We may dismiss it in this patient.

We must consider rheumatic heart disease, but one would have to stretch one's imagination to explain the spleen and the hyperglobulinemia. Anyone can have rheumatic heart disease and die of something else. But I can't pin rheumatic heart disease on this patient. All we have is a systolic murmur heard on three of four admissions, and that isn't enough evidence. If she has it, I would predict it would be purely incidental, but I don't think she has it. I think there are better explanation for that systolic murmur.

We must consider collagen and arteritic disease in a person with an intermittent course over four years involving as many areas of the body and proceeding to death. But the only evidence for it is she has multiple organ system disease.

Tuberculosis was obviously suspected but acid-fast bacilli were not found. Giant cells that looked like tuberculosis or sarcoid were demonstrated. One can say that no one who had tuberculosis, accounting for the degree of lung involvement that this patient had on the first admission, would have this clinical course. Enlargement of liver and spleen are common with tuberculosis, but it is usually with the very rapid miliary type. Renal tuberculosis produces a different picture. Tuberculosis cannot account for this picture.

Amyloid

The stage might have been set by either bronchiectasis or tuberculosis for amyloid. If this is secondary amyloidosis, we have to explain the cardiac failure on the basis of *cor pulmonale* secondary to amyloid infiltration of the lung because myocardial amyloidosis is rare with secondary amyloidosis. If we call this primary amyloidosis and attribute the heart failure to primary amyloidosis then the kidney, liver, and spleen don't fit well. On the other hand, as mentioned a moment ago,

there are many features of this illness, including the diarrhea which would fit quite well with amyloidosis and I do not believe we are in a position to exclude that diagnosis with certainty.

Sarcoid

It would appear from reading the protocol that sarcoid was the diagnosis during life. Sarcoid may cause heart failure by infiltration of the myocardium or by the mechanical obliteration of the pulmonary vascular bed. I deem it obvious that the patient had a *cor pulmonale* and one of the undecided questions is whether she also had myocardial infiltration with either sarcoid or amyloid. Kidney disease is not as common in sarcoidosis as in amyloidosis, but it is not excessively rare. The excessive globulin might occur with either sarcoid or amyloid but of course is more typical of sarcoid.

Then there are the giant cells. Amyloid has nothing to do with giant cells, sarcoid has everything to do with giant cells. Before we see the x-rays, my tentative impression in this individual had sarcoid plus something else. Something else might have been amyloid. I would like to get Dr. Schneider to help us before we offer any final opinion.

Dr. Schneider: I have films of the chest and abdomen for discussion.

The abdominal films show mild hepatomegaly and moderate splenomegaly. There is inferior displacement of the left kidney by the enlarged spleen. An I.V.P. shows normal size kidneys with bilateral mild caliectasia as seen in chronic pyelonephritis.

The chest shows many findings of interest.

There is extensive linear and nodular pulmonary disease with interspersing cystic lesions of variable size throughout both lung fields, though primarily involving the right middle and both upper lobes. The middle lobe and lingular also have areas of lobular confluency.

Moderate symmetrical enlargement of the hilar and peritracheal lymph nodes is present. Within the nodes are scattered calcified plaques lying primarily at the periphery. This distribution is called "egg-shell" calcification.

Bilateral pleural thickening is present obliterating the costophrenic sinuses. A few scattered calcified pleural plaques are present bilaterally.

The margins of the heart are obscured by the lingular and middle lobe disease but multiple positional views of the chest suggest mild nonspecific enlargement.

The pulmonary arc segment is obscured by the lymphadenopathy.

In comparing the serial chest examinations during the course of the patient's illness, the pulmonary disease shows a progression in the cystic disease but little change in the interstitial disease. The lobular areas of confluency vary in location and severity, showing periods of

resolution and recurrence.

This fluctuation suggests varying degrees of superimposed pulmonary congestion rather than reversible inflammatory disease. Furthermore, with the severity of the chronic pulmonary disease and the minimal cardiac enlargement, I suspect the presence of *Cor pulmonale*.

The type of hilar calcification present is most frequently seen in complicated pneumoconiosis, particularly silicosis. However, an exposure history is lacking.

Tuberculosis or fungi may cause hilar calcification as well as explaining the pulmonary and pleural disease.

Histoplasmosis

I am particularly concerned about the possibility of histoplasmosis which is endemic in this area.

As to sarcoid, the radiographic pattern would be entirely compatible, except for the lymph node and pleural calcification.

I have found a few comments in the literature of an occasional finding of calcification in sarcoid, but without complication, it is hard for me to conceive that this can occur in sarcoidosis.

Dr. Harrison: Dr. Schneider has introduced one additional interesting possibility, namely that of histoplasmosis which certainly can be a tricky disease and which can produce chronic disease of the lungs, enlargement of liver and spleen and which can involve the kidneys.

The relatively few instances of diffuse histoplasmosis which I have seen have had a more rapid down hill course than this and are characterized usually by a febrile illness. It is one of the fungi that has short teeth. I've read some place that at times one may get giant cells from histoplasma, and the formation of pseudotubercles, so to speak, from histoplasmosis.

Dr. Schneider raised another question which is interesting in the light of these giant cells and that is the possibility of some type of pneumoconiosis. Certainly, a foreign body reaction in the tissues might produce a lesion which would be very difficult to distinguish under the microscope from either sarcoid or tuberculosis. The presence of calcification in this patient, as Dr. Schneider points out, is evidence against sarcoidosis. I believe it is evidence against amyloidosis also. However, it is not evidence against some chronic infection which might co-exist with sarcoid or which might lead to amyloidosis. In this patient the absence of enlarged lymph nodes, the absence of any statement about skin lesions or the parotid gland or eye are all against sarcoid. But most of the picture, in my mind, favors it.

I believe this patient had 1) sarcoidosis with involvement of the lungs, liver, kidney and spleen and almost certainly the internal lymph nodes of the body and 2) cor pulmonale. I think it is likely that the

patient had 3) myocardial sarcoidosis to account for the terminal auricular fibrillation, but I would expect that the heart failure is mainly the result of the mechanical troubles of the lungs. I would suspect that subsequent to chronic sarcoidosis that the patient had 4) focal emphysema as such patients often do. I can account for sarcoid in all features of this picture except one and that is the hemoptysis, and perhaps the rather marked terminal emaciation. We know that something like one quarter of the people who have sarcoidosis have active tuberculosis at autopsy. Tuberculosis is perhaps the most common single cause of hemoptysis in a colored female, age 55.

I therefore believe that this patient had sarcoidosis (Boeck's Sarcoid) involving the organs mentioned and in addition had 5) tuberculosis of the lungs.

DR. HARRISON'S DIAGNOSES:

1. Sarcoidosis with involvement of lungs, liver, kidney, spleen and internal lymph nodes of the body.
2. Cor pulmonale.
3. Myocardial sarcoidosis.
4. Pulmonary emphysema, focal.
5. Pulmonary tuberculosis.

WARD DIAGNOSES:

1. Sarcoidosis, generalized.
2. Cor pulmonale.
3. Digitalis intoxication.

Twenty-seven students diagnosed sarcoidosis. Three of these students had a secondary diagnosis "to rule out tuberculosis"; four, "secondary amyloidosis" and one "to rule out carcinoma of the lungs."

PATHOLOGY DIAGNOSES:

1. Chronic granulomatous inflammation consistent with sarcoid involving lymph nodes (thoraco-abdominal), spleen, liver and lungs.
2. Multiple foci of calcification, thoraco-abdominal lymph nodes and lungs.
3. Amyloidosis, secondary, involving lymph nodes, spleen, liver and lungs.
4. Chronic passive hyperemia of liver with hemorrhage, focal acute inflammation with necrosis.

Pathology

Dr. J. F. A. McManus: This long and complicated case has been boiled down to the very fundamentals by Dr. Harrison and some of the students. At the time of autopsy this was an emaciated, colored female who showed peripheral edema and otherwise nothing very much externally remarkable. The spleen was about twice normal size, smooth and symmetrical. The liver was about normal size. There was an obliterative pleurisy of fibrous, old type binding down both lungs so that the parietal pleura had to be removed with the lungs. With the parietal pleura there was a considerable increase in the weight of the lungs, the right weighing 725 grams and the left weighing 475 grams. The heart was remarkable chiefly for some dilation of its right side

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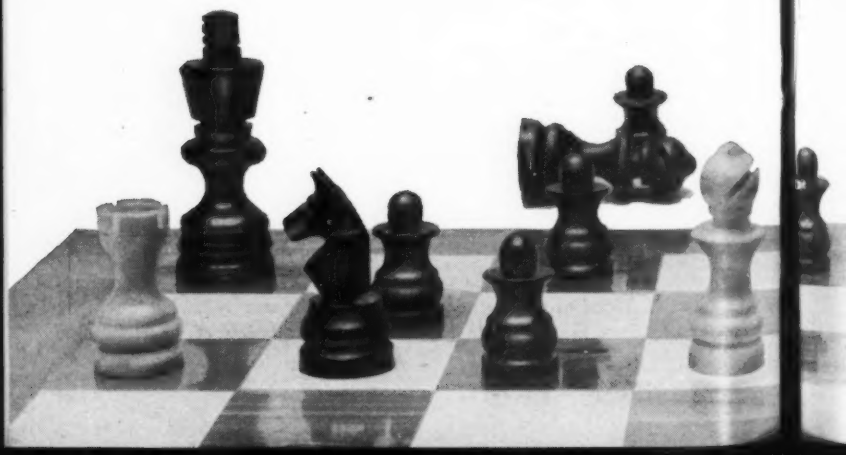

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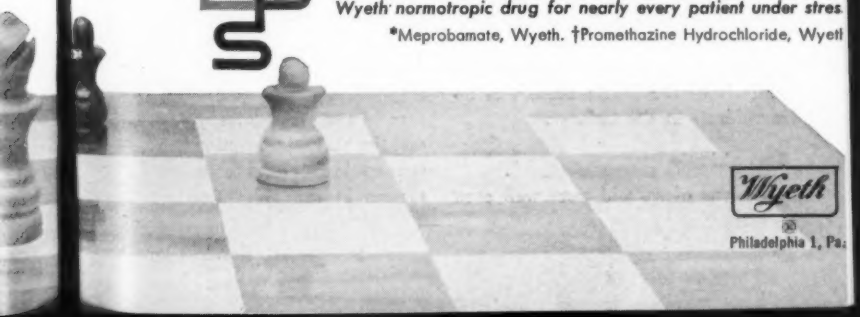

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and the presence of a fibrinous pericarditis, fairly recent in origin, for which there is no explanation apart from the possible uremic termination.

On the basis of arterio- and arteriolar nephrosclerosis with focal pyelonephritis affecting both kidneys, their weight, including the peri-pelvic fat, was down to 120 grams apiece. This weight of 120 grams for a shrunken kidney with increased peri-pelvic fat probably means that 4/5 of this is actual functioning kidney weight. Both kidneys were scarred and decreased in size. The lymph nodes within the body generally were enlarged and firm. Foci of calcification were seen in them.

Within the lungs was found a diffuse fibrosis, arteriosclerosis of fairly marked degree and emphysematous blebs or cyst-like spaces which correspond to the x-ray description of Dr. Schneider. In many instances these emphysematous blebs were in relation to areas of scarring, of rather small size and suggest that some destruction of lung tissue had occurred to produce the emphysema. The right lower lobe was solid and congested, but microscopically this was largely on the basis of particular accumulation of fluid and some collapse as well. There is no sarcoidosis of the heart; there was no sarcoidosis in the kidneys.

Sarcoidosis

Lesions of sarcoid were well seen in many areas within the lungs and within the spleen. There were tubercles without caseation still present four years after the original lymph node diagnosis of sarcoidosis was made. In many of these situations one sees a hypalin material which corresponds in staining reaction to amyloid and one sees in sections of the spleen a summary of the story in the autopsy, i.e. sarcoidosis and amyloidosis.

The lymph nodes showed amyloid deposit. One sees in certain areas where the amyloid is found that there is a hyalinization of lesions which have the outline and distribution of sarcoid. A possibility exists that a certain number of these lesions which we are now calling amyloid represent this particular variety of healing of sarcoidosis which Teilum and others have mentioned, that is, the association of a hyalin material called para-amyloid. with sarcoid. This is a point which I think is outdated. The separation between amyloidosis and para-amyloidosis is an unnecessary one unless there is a good chemical basis upon which to make this separation. We do not have such at the present time. I am more of a mind to call this amyloidosis than to add any para-, pseudo-, semi, demi, or any other modifying phrases. Perhaps these amyloid deposits represent healed sarcoid too. As far as we can make out the staining reaction, with acid mucopolysaccharide around the masses in the older centrally situ-

ated portions, being weakly positive with periodic-acid-Schiff stain, gives a characteristic distribution in the lymph nodes and a characteristic coloring reaction for amyloid.

Liver

Within the liver, amyloid deposits press the liver cells together. In many instances there is some atrophy of liver cells. The liver also shows marked chronic passive congestion with focal necrosis. Perhaps the best distribution of amyloid in this patient is in the multiple fine nodules in the lungs. Here there is some chronic infection and a rather massive distribution of extra-cellular hyalin material with the staining reaction of amyloid. These multiple small lesions, with their extremely wide distribution in the lungs, were sufficient to reduce significantly pulmonary capacity and sufficient also to represent a considerable barrier to the circulation so that the dilation of the right heart, and perhaps some hypertrophy, of the cor pulmonale type could have been due to this amyloid deposit as well as to sarcoidosis, many active foci which were still to be found.

Dilation was the most striking feature of the right heart. I am just not sure how much hypertrophy there was in that chamber, Dr. Harrison. It may have been minimal. There are no adequate methods for quantitating weight of the right ventricle. We might as well include what we can see and if clinically this fits the picture of our pulmonale we will agree that that is a good likelihood. Certainly, there are signs of right sided heart failure in the severe chronic passive congestion of the liver which terminally was actually much more acute with foci of necrosis and acute inflammation. Marked fatty change in the liver relates to the extended illness and the nutritional condition of the woman. The bilateral focal pulmonary emphysema to the degree of cysts, we have already attempted to explain and the bilateral, marked fibrous pleural adhesions are necessary to mention because these may give a clue to the earlier features of the case to correlate with some of the clinical findings. There was a bilateral obliteration of the pleural spaces.

The problem of the pathologist, in attempting to work back from the findings at one instant, i.e. at the time of death or at the time of biopsy to reconstitute a picture is something that presents many difficulties. It has been said we are trying to investigate a battle field of long ago and from the remnants attempt to decide who was fighting and at what time and at what strength the struggle occurred. We have no evidence of present tuberculosis in this case. The best evidence of past tuberculosis we have in the case resides in the bilateral obliterative pleurisy and in the foci of pulmonary calcification as Dr. Schneider pointed out. We did, I don't

know how many, acid fast and special fungi stains without seeing present disease due either to fungi or to the mycobacterium. It is highly probable that in the past, perhaps with the initial episode, there was an active tuberculosis which is now well healed, but which has persisted as its associate. The frequent associate of tuberculosis is the sarcoidosis of Bessnier-Boeck.

Amyloidosis

The calcification in sarcoid can occur as microscopic foci which are the Schaumann bodies. We don't believe that the type of calcification which was found here was related even to a great aggregation of the Schaumann bodies. It is believed rather that this was the tombstone of old tuberculosis which might have been the presenting disease.

The picture has been taken over by sarcoid from tuberculosis, and then in turn the amyloidosis supervened in the sarcoid. The long and respectable history of amyloidosis dating back to Rokatansky in 1842 and Virchow in 1854 is too familiar to all of you to need repetition. Let me mention only a few of the present opinions that may relate particularly to this case. We are thinking more and more of secondary amyloidosis as perhaps a storage variety, a thesaurosis, if you will, of the collagen disease group, the polysystem disease group. Amyloid, as a particular compound of protein and carbohydrate, may be the excessive accumulation of a normal constituent of the ground substance or perhaps an abnormal ground substance-like material deposited in these many extra-cellular situations. We think of secondary amyloidosis as particularly related to these diseases of the hyperglobulinemia groups, the extended anti-body reaction type.

The classical type, of course, is tuberculosis and chronic suppuration, particularly of bone. One finds mentioned from time to time in the literature of an association with sarcoidosis such as is present in this case. The relationship of hyperglobulinemia in sarcoid is such a striking thing that Teilum, as I mentioned before, has already referred to this as a lesion which has along side of it, and in its healing phases, this amyloid material. He speaks of these lesions in the lymph node as hyperglobulinemic lesions.

The case, then, seems to tie best together as tuberculosis which has left as its sign only the calcification and the obliterative pleurisy, some fine scarring within the lungs and calcifications, all of which has been associated perhaps from the beginning, and certainly from the time of the first admission, with sarcoidosis and on which amyloidosis has supervened. I think the case is interesting also from this, perhaps, newer concept of a storage variety of one of the systemic or collagen diseases.

Dr. Harrison: I would like to ask if anyone knows whether people with

Kala Azar, who of course have very high globulins, often have amyloid disease. It seems to me, as Dr. McManus said, our thinking is moving away from specific etiology toward specific mechanisms. The more one follows people with amyloid, the more one realizes that it tends to occur in conditions in which globulin is high. There are a lot of different globulins, and it may well be that in some of the diseases with high globulins, amyloidosis doesn't occur because of the wrong kind of globulins. Multiple myeloma, the disease other than sarcoid which we see in this part of the world with the highest globulins, also is associated with amyloidosis very frequently.

Dr. McManus: And even clinically, Dr. Harrison, in surgical pathology we are seeing amyloid tumors, so called, and patients later pop up with multiple myeloma. It may be such a close association.

Dr. Harrison: It makes one think that perhaps we are getting a little closer toward understanding the pathogenesis of this very bizarre and interesting disorder, amyloidosis. I will make another comment because Dr. Boyd isn't here to make it and I know he would.

He would talk about words and he would be amused at Dr. McManus quoting someone about paraamyloid because amyloid itself means starch-like and if you are going to say amyloidoid then you would have amyloidoidoid, etc., etc., ad infinitum. And incidentally, sarcoid also, you see, is one of these things that has an "oid" on it. Whenever we get something we don't understand and it bears a superficial resemblance to something we do understand we put "oid" on it thinking we can explain it. That is a common way to use words in medicine. Finally, I really believe it is a shame the pathologists missed the amyloid in the intestines which must have been there to account for the diarrhea.

Dr. McManus: The amyloid if ever present in the intestine was like the tuberculosis. It went away, not being seen in section.

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FURADANTIN I.V. solution is dissolved aseptically in a sterile diluent at room temperature, just prior to use by intravenous drip only. Full dosage instructions and discussion of indications and side effects are enclosed in each package. FURADANTIN I.V. is now available to all hospital pharmacies.

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fidence of the people. They must help their plans meet the challenges of today and tomorrow for an ever-growing and improving medical care program. Occasionally, they must make some personal sacrifice for the greater good of a free profession and a free society.

The "service benefit" idea is the one great attraction Blue Shield can offer the patient which the insurance companies cannot match. Without it, Blue Shield "would never have gotten off the ground."

Service benefits

In previous articles, "service benefits" received mention as a distinctive feature of most Blue Cross and Blue Shield plans. Indeed, the service benefit idea is the one great attraction Blue Shield can offer the patient which the insurance companies cannot match.

How does it work? A typical picture would be this: Let's say that you're a "Participating Physician" in your local Blue Shield plan.

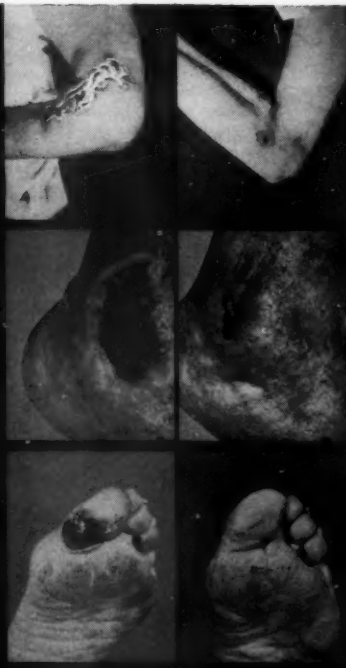
This means you are one of the 85% to 90% of all physicians in Blue Shield service benefit areas who have voluntarily signed agreements to cooperate with their local plans.

Usually, this agreement pledges you to accept the plan's payment as your full payment for any professional service covered by the subscriber's contract, provided the subscriber's income is within a specified "income limit" for service benefits. In other words, as a Participating Physician, you've formally accepted the plan's schedule of payments as your own schedule of fees for subscribers in the lower and moderate income brackets. And there's sense and logic in this. Whatever the local Blue Shield schedule of payments may be, it should represent the collective judgment of *you and your colleagues* (acting through your local medical society) as to what the acceptable local fees actually are for people in these income brackets. (If your schedule *doesn't* represent the thinking of the local profession, chances are it's the fault of the sponsoring medical society that such a condition exists.)

Then, too, over and beyond the fee schedule, remember that Blue Shield looks to its sponsoring medical society and its participating physicians for guidance in all its medical policies and procedures.

Whenever a Blue Shield service benefit patient comes to you for a service covered by his contract, you treat him as you would any other patient. *But you send your bill directly to the plan.*

In a week or two, you'll receive the plan's check, and coincidentally, the plan will notify your patient of the payment made to you.



left
Traumatic ulceration with edema in a paralyzed arm

right
Almost complete healing with Panthoderm Cream applied twice daily for three weeks

left
Varicose ulcer of ankle, large, deep, profuse foul-smelling discharge

right
Healing of ulcer after treatment with Panthoderm Cream for ten weeks

left
Diabetic ulceration of great toe of two months' duration; unresponsive to previous therapy

right
Complete healing after two weeks therapy with Panthoderm Cream

relieves
pain
and itching...
stimulates
healing

even
when
other
therapy
fails...

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Indemnity

Perhaps you'll be practicing in an area where the Blue Shield plan operates on an "indemnity basis," or perhaps your patient's income may be such as to place him outside the service benefit category. In such a case, everything will be the same except that if the plan payment is less than the fee you'd normally charge this particular patient for the particular service you've rendered, then you're free to accept the plan payment as part payment and bill the patient for the balance.

In other words, in the latter case, you've accepted the plan's payment as an indemnity against your normal charge, and you'll look to your patient to pay the difference.

A service benefit plan, obviously, carries a special attraction for the low or moderate income patient. It assures him that if he needs an appendectomy, his prepayment contract will cover the full cost of the service, and he need not worry about having to supplement the plan's payment with extra dollars to meet his surgeon's bill.

Service benefit plans generally consider the service feature as their outstanding sales attraction, and most students of Blue Shield agree that without this feature Blue Shield would never have gotten "off the ground." This is certainly tantamount to saying that were it not for Blue Shield's service benefits, America's health insurance program might conceivably be dominated today by some form of government medicine.

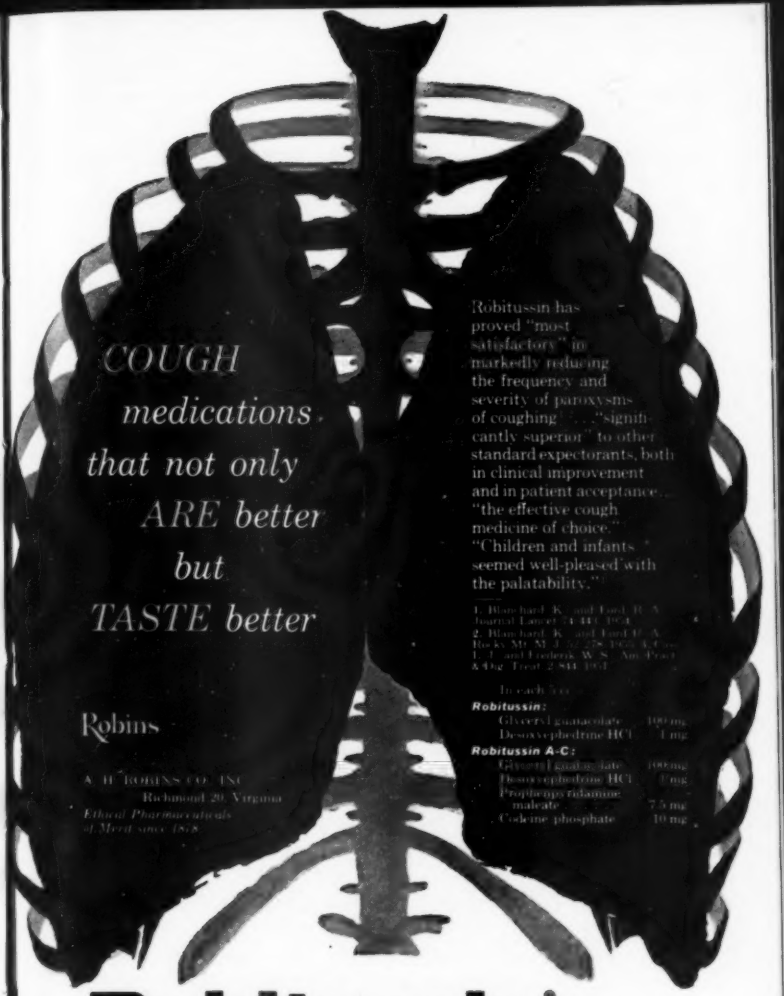
Blue Shield is an organization of the profession itself, not a "third party." Not only must a Blue Shield plan be approved by its local sponsoring medical society, not only must the plan's medical policies be under medical control, but it must earn and retain the voluntary participation of at least a majority of all the doctors practicing in its area of operation.

Service benefits do great credit to the medical profession in the eyes of the people generally, because the service benefit arrangement deemphasizes the cash aspects of medical practice and highlights the idea of service. Thus, service benefits dramatize, tangibly, the service traditions of medicine.

Not only does this feature furnish the one incontrovertible justification for medicine to sponsor a prepayment plan, but it also gives every participating doctor an opportunity to make a concrete contribution and to play an active part in his profession's own program for the solution of our greatest national problem in the area of medical economics.

No third party

Medicine has always been on guard against any "third party" coming



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between the doctor and his patient. When any agency enters this picture, allegedly to help the patient or the doctor or both, the profession is likely to ask two questions: First, is it likely, or even possible, for this agency, directly or indirectly, to affect the doctor's professional freedom and responsibility for the care of his patient? Secondly, is this agency controlled by the profession or subject to its control?

Blue Shield's growth safeguards its base of operations. As risks are spread ever more widely, both the community and the doctor are protected against fluctuations both in rates and in payments to doctors.

Blue Shield — *alone* among all prepayment or health insurance programs so far evolved — can answer the first of these questions in the negative and the second in the affirmative.

The Board of Directors of the national association of "Blue Shield Medical Care Plans" recently declared that "Blue Shield Plans exist only to help the medical profession facilitate the provision of its services to the people . . . Blue Shield is an organization of the profession itself, and not a third party . . ."

For not only must any Blue Shield plan be approved by its local sponsoring medical society, and not only must the plan's medical policies be under medical control, but it must earn and retain the voluntary participation of at least a majority of all the doctors practicing in its area of operation.

Doctors and insurance

Blue Shield plans were organized by the medical profession itself at a time when the insurance industry said prepaid medical care was not feasible. They were right. Medical prepayment, as a service plan, could not be organized and offered by an insurance company. This job had to

About The Author

Nationally known as a consultant in medical administration, public relations and prepayment, the author has had more than 25 years' experience in medical administrative work as executive secretary of the medical societies of New Jersey (state) and Westchester and New York (county). Mr. Bryan was administrator of New Jersey's Blue Shield Plan from 1950 to 1955. His authorship includes articles published in many of the leading medical journals as well as the book, "Public Relations in Medical Practice," Williams & Wilkins, *1954*.

1. Miller, J. M.; Surmonte, J. A.; Ginsberg, M., and Ablondi, F. B.: Streptokinase Intramuscularly in the Treatment of Infection and Edema. (Scientific Exhibit) *Postgraduate Medicine* Vol. 20, No. 3: 260-267 (Sept.) 1956.

Postgraduate Medicine

"OBSERVATIONS ON THE INTRAMUSCULAR USE OF STREPTOKINASE[1]

1. Most patients showed beneficial clinical effect after 24 hours.
2. No aggravation of infection.
3. No delay in wound healing.
4. Ten per cent of patients had temperature rise of 2 to 3° F., easily controlled by medication.
5. No changes in peripheral blood picture.
6. No significant alteration of prothrombin time.
7. No fibrinolysis.†
8. Some pain and tenderness at injection site in about 60 per cent of cases.
9. No hemorrhage, hematoma or petechiae.
10. No granulomas at injection site.
11. No chills, cyanosis or allergic reaction.

DOSAGE

Five thousand units of streptokinase in 0.5 cc. of physiologic saline administered intramuscularly twice a day for at least six doses. Treatment may be continued longer if necessary. It may be given preoperatively where considerable edema is expected postoperatively.

PRECAUTIONS

1. An antibacterial drug must be given with the intramuscularly administered streptokinase.
2. Streptokinase should not be given to patients known to have defects in the clotting mechanism."

†No fibrinolysis detectable in circulating blood stream.

be done by medicine itself.

Blue Shield succeeded because American medicine was behind it. In the early days, participating physicians accepted less than normal schedules for their services. They also agreed to accept (and in many areas they have actually accepted) pro-rated portions of those fees when the local plan was unable to pay the full schedule. Thus, the profession has acted as the underwriter as well as sponsor of many of the Blue Shield plans.

The doctor is the key man—or at least, his voice can and should be the controlling voice in shaping the future of American medicine. And Blue Shield is his servant, not his master.

Beyond that, professional leaders in all parts of the country have given incalculable hours of their time, without a cent of remuneration, as the directors and trustees of Blue Shield plans.

Did doctors accept these responsibilities in order to put medicine "in the insurance business?"

Certainly not! Medicine is in the business of providing medical care — nothing else. Doctors are always concerned with the ways and means by which patients pay for medical care, and they quite naturally want to make sure that the profession itself may continue to control the economy of medical practice.

Blue Shield represents the most outstanding example of professional cooperation and teamwork in modern times. It is all the more remarkable when you remember that this cooperation has taken place in a field of operation quite foreign to the doctor's training. That's why it is so important for all physicians to become acquainted with the basic principles of prepayment—and especially the dynamics of Blue Shield.

Law of averages

One of these principles is the vital role that the law of averages plays in all insurance operations. Averages are of little interest in medicine where every case, every patient every doctor, every reaction — is unique. No two operative procedures, though they bear the same name—are ever precisely the same.

As a general rule, Blue Shield cannot pay more for the tough case, nor less for the uncomplicated one. Blue Shield asks the doctor to conceive the *average* — and to think in terms of it.

But this works to the doctor's advantage, too, for Blue Shield pays him for services rendered to many of his patients who, except for Blue Shield, would reluctantly qualify for his unpaid services as ward patients in the hospital.

Growth

Today, the public recognizes Blue

Shield as a major item in America's social progress. The continued growth of Blue Shield is necessary for several reasons:

- Medical prepayment creates a credit for the patient and protects his future; where old-fashioned post-payment created heavy debts and mortgaged the patient's future.
- Blue Shield's growth safeguards its base of operations. As risks are spread ever more widely, both the community and the doctor are protected against fluctuations both in rates and in payments to doctors.
- The bigger the plan, the lower the per capita cost of operating the plan, and the larger the proportion of income available for benefit payments.
- The greater the number of patients covered by prepayment, the fewer for whom the doctor has a collection problem, and the lighter his load of free or part-pay work.

Alternatives

What are the alternatives to Blue Shield? The first to come to mind, of course, is the commercial insurance company. But these are only partly alternatives, in that they cannot offer prepaid service benefits. And they are competitors only in a partial sense, too, for the commercial companies are primarily interested in insuring those parts of the community that offer some prospect of profitable underwriting.

Another alternative form is the salaried group (such as H.I.P. in New York or the Kaiser-Permanente organization in California) which operates under its own prepayment arrangement. These plans offer generally a more complete or "comprehensive" scope of service than Blue Shield plans, but the patient's choice of physician is limited to the group or groups participating in the program, and his choice of physician within the group is also severely limited.

Labor unions in various metropolitan centers (New York, St. Louis, Detroit, etc.) or within certain industrial areas (such as the coal mining fields) are promoting various "closed panel" schemes on a salaried or annual capitation basis.

Finally, there are the alternatives of government administered, compulsory health insurance or straight out state medicine with salaried physicians.

These alternatives were once far more actively and hopefully anticipated by organized labor and some social welfare groups than they are today, in the light of the widespread popularity of the Blue Plans.

Blue Shield has brought prepayment into the prevailing and traditional forms of private practice in the United States. It is equally adaptable both to the older pattern of solo practice and to the newer forms of group practice. It does not require that medicine change its modes of practice but leaves the profession free to adopt whatever changes seem desirable to improve

the quality of practice and the care of the patient.

The doctor is the key man—or, at least, his voice can and should be the controlling voice in shaping the future of American medicine.

Blue Shield is his servant, not his master. It deserves his wholehearted support because it is fashioned in his own image. It is his creation, and it has no purpose other than to help the doctor better to serve his patient. Blue Shield helps safeguard the freedoms of medicine which both the doctor and his patient want to keep strong and secure.

Knowledge—Loose Talk

You, as doctors, are frequently called upon by your patients in casual conversation and with lawyers to express thoughtful and helpful opinions. The accomplishment of this in both a responsive and responsible manner requires general knowledge in broad education, an inquisitive mind, willingness to continue to develop your own intellectual catholicity, and the avoidance of garrulousness. This becomes increasingly important with the increasing development and use of radioactive substances.

For example:

(1) A man working in one of the large centers developed infectious mononucleosis. A doctor was called upon to explain this and to back up the contention of the wife that this could be caused by radiation. He was confronted with all sorts of clippings from popular magazines and newspapers.

(2) The second case is that of the baby born with cleft palate. The parents immediately propounded the same question to the doctor.

In both instances the doctors did not have self-assurance in their own knowledge to state definitely that both of these conditions were common even long before the days of radiation exposure. These examples illustrate the danger of wishing to place the blame for ordinary conditions on radiation: one as to causation of radiation illness, and the other as to its effect upon genetics.

Knowledge will bring assurance to the physician and reassurance to his patient. Conversely, loose talk and uncritical opinions will spread alarm and anxiety and eventually will cause trouble for both the physician and his patient.

FRANK B. BERRY, M.D.
Assistant Secretary of Defense

Reprinted from *Armed Forces Medical Journal*, August 1957

Certainty generally is an illusion,
and repose is not the destiny of man.

JUSTICE OLIVER WENDELL HOLMES, JR.

Resident at Lankenau

Reversing the usual pattern of training in youth, practice in age, the author represents one of a growing number of physicians who have given up their successful general practices to take a residency.

Forrest H. Howard, M.D.

THE Lankenau Hospital of Philadelphia, so my Lankenau beer mug tells me, was incorporated April 2, 1860. However, hospital authorities say it was in October 1860, that the Pennsylvania legislature granted a charter to the "German Hospital of Philadelphia."

Here, in the early 1800's, displaced persons of German extraction could come for treatment by competent physicians who spoke their own language.

Probably the most famous personage, medically, in this institution (in Philadelphia they pronounce it "in-stee'tution") was Dr. John B. Deaver, the originator of the Deaver Retractor, and the originator of the Deaver incision for appendectomy. Many well known and learned physicians are ex-interns and residents here; among them is Dr. John B. Hirst, Professor of Obstetrics and Gynecology in the Graduate School of the University of Pennsylvania. Dr. Hirst tells his classes each year that Dr. John Deaver was the great-

est surgeon of modern times, if not of all time.

Still walks

During World War I, the name of the hospital was changed from the German Hospital to the Lankenau Hospital, in honor of Mr. John D. Lankenau, who was the president of the Hospital Board from 1868 to 1901. Mr. Lankenau, like Mr. Lincoln in Springfield, "still walks" in the Lankenau Hospital, although he died in 1901.

The traditions handed down by the German-speaking physicians give the institution somewhat the air of a relaxed, kindly, old-world university. Research is encouraged, but not forced on its residents. The staff, which is a closed staff, is as fine as there is in Philadelphia.

In this semi-academic atmosphere, I am the resident obstetrician-gynecologist. That's not so unusual, you may say, for many of the readers of this journal are residents in much older institutions with just as much tradition. However, my case does deviate from the usual.

I was graduated from the University of Rochester (New York) in 1934.

When my next birthday comes around, I'll be fifty.

Specialty

How does it happen that an individual of somewhat advanced age would come back after more than 20 years to take a residency? In a word, certification—and the pride that goes with it. The quickest way to become certified is to be a resident.

Then too, the body of medical knowledge is getting too complex to keep up with; to do a good job, a general practitioner must know more than my aging brain can contain. And since my training started out with obstetrics and gynecology in mind, it seemed logical to me to specialize in my original field. There is also the "Howard Obstetrical Table," about which more later.

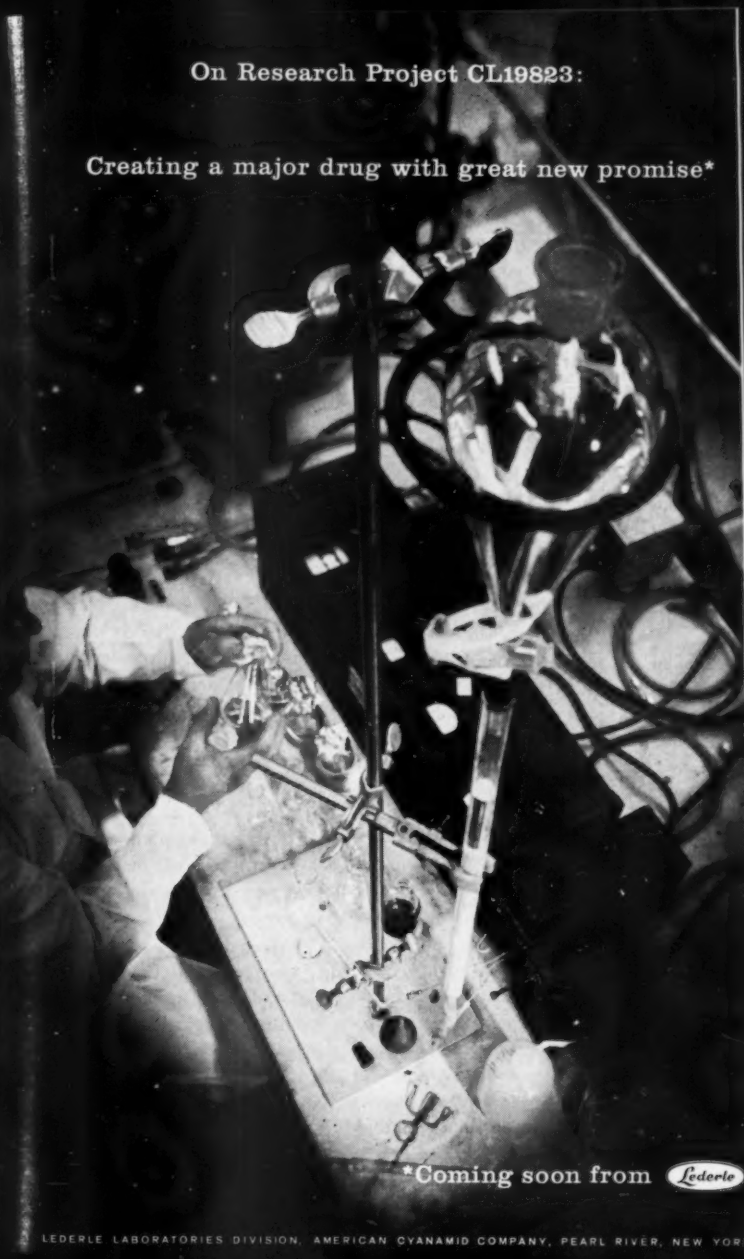
Then there is the rest of my team, namely my wife. If she hadn't had the pride in me that she has, we wouldn't have quit our practice to attend the University of Pennsylvania Graduate School of Medicine for a year and then spend this year as a resident, with the hope of bettering ourselves.

A wife who will sell her home, live in a trailer, and then an apartment, and work nights as a private duty nurse—fellows, *there* is a wife. And she comes into the picture in connection with the table.

Then and now

The comparison of medicine in 1934 and now can never cease to amaze one who has been through it. I had practiced all those years knowing nothing of the Krebs cycle or cytochrome C.

Since my mentality absorbs things faster if someone tells me something than if I read it, a good bit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of my keeping up with the medical world was through the detail men of the various drug houses. You will find them well informed about their products if they are from a good company. However, all failed to give me the scoop on cytochrome C.

Good medical meetings have also been part of my audio education. A subscription to MEDICAL TIMES, the *J.A.M.A.*, and a specialty journal will help you know what the future will bring in therapy, such as our present ideas of potassium, sodium and chlorides. (I remember one detail man trying to explain some of the modern concepts of fluid therapy to me, but I hadn't been sufficiently primed.)

Getting back to 1934, after I had had my sheepskin handed to me by Dean George H. Whipple (he must have known about cytochrome C, but I don't remember his mentioning it), I spent a year in the University of Rochester Hospitals in obstetrics and gynecology. The resident was W. T. Pommerenke, and Willard M. Allen was an assistant resident. George Heckel of Rochester and Dave Collison of Vancouver, B. C. were fellow interns.

We relied on transfusions for the treatment of puerperal sepsis, Stroganoff treatment for eclampsia, and something new—fever therapy—for the gonococcus. We sent our luetics to a medical clinic for block therapy of heavy metals.

As I recall it, the professor did two total hysterectomies that year, but numerous subtotals. We had lots of pelvic abscesses and lots of clean-out jobs of the pelvis as an aftermath of pelvic inflammation, either from gonorrhea, post-abortal or post partum. The professor did one "low cervical" section, but looking back I think that this particular section would now be classed as a low classic with advancement of the bladder.

Income

Having in mind that I wanted to be well trained, for my next year I applied for and got the surgical pathology residency at the University of Colorado.

This was in 1935 when things were really tight money-wise. The depression had been going on since 1929. My second child was born in Denver. I felt a man with a family shouldn't be monkeying around moving all over the country for residencies, unless he owned an oil well or two. So, the plunge into the private practice of medicine "for a year or two until I got enough money."

I started in as assistant to a plastic surgeon in Colorado Springs, Colorado, at a salary of $100 a month and what I could collect from private practice. My first patient was an addict who paid me $2 for an office call but left disgusted because I had no narcotics license. I had the $2 though—and promptly

used one of the dollars to acquire a narcotics license.

Since the money wasn't pouring in as I had hoped it would, I moved to Pocatello, Idaho, which is my home town. My ex-wife didn't like the town, so after looking over the situation in Idaho, I settled in Shoshone, Idaho, where I agreed to buy a physician's practice for the price of his real estate. A contract was drawn up and signed. Part of the agreement was verbal. (I later found out that a verbal contract is valid only if there is no written contract.) The doctor and I let each other off the hook, however, and later he sold his real estate to non-medical people.

I began to do well financially, and built a combination home and office. It was from this place that a Mexican woman called me after she had been in labor for 36 hours. While I was explaining to her husband that the baby was dead, and that she would have to go to the hospital and have a Caesarean section to deliver the child, the woman got up out of her bed, walked to the corner of the room, and started straining as if she were in the second stage of labor. She was.

She delivered a stillborn fetus while squatting just like my little boy on his potty chair. I then recalled Professor Karl M. Wilson's remarks to our medical school class when he said that the physiologic position for delivery was the squatting position. The idea that there might be some benefit from that position gradually penetrated my thinking. It took considerable time before the next step was made.

Lighter side

The practice of medicine always has its lighter side. Quite often this has to do with the sayings of the kids with whom we come in contact. One of my favorites concerns a four-year-old whose mother was about to present him with a younger brother. When the tyke awakened in the morning, he was amazed to see the doctor there. He demanded an explanation from his dad. Dad took him on his lap and started giving him the facts of life, with especial reference to his mother. Finally, the lad, who had always lived on the farm, looked up, and with sudden understanding said "Oh! I see, Ma's going to come fresh!"

One of the harder things to learn is that you really don't know some things. While I was in general practice, one of my psychotic patients was brought before a judge to be committed. She listened while the body of evidence was developed. Finally, the judge turned to her and said "Madame, have you any explanation for your actions?"

"Yes," she replied.

"Well, then, how do you explain this behavior?" the judge asked.

"When I was 9 years old, in 1926, I was raped," she said.

Said the judge: "And would you

know the man who did it?"

"I'd know him anywhere," she proclaimed, "that's the man there, Dr. Howard."

So is confirmed the age of specialization. That would drive anyone into Ob.

Also during my stay in Shoshone, I ran afoul the greatest danger to the practice of medicine today. Shoshone being a rural area, many of the farmers were financed by the Agricultural Adjustment Act. The government would lend the farmer enough to make his crop, take a complete mortgage on his land, his crop, his personal effects. He couldn't sell anything without the signature of the AAA supervisor, nor could he sign a check without the check being countersigned by the same man. They had his whole budget figured out for him. They didn't seem to be able to figure out what he should have for medical care, however.

Proposition

An AAA social worker came to my office one day, and placed these facts before me: "There are 120 families in this county who are financed by the Agricultural Adjustment Act provisions, and we have put into each of their budgets $40 for their complete medical care for a year. All these people want you to have their business and this money."

What would I have to do for this $4800?

It developed that I would have to provide complete medical care, pay their hospital bills and drug bills. If they needed a specialist's care, I would see that they got it and pay the specialist. I'm not that stupid; naturally, I refused.

Then came the threat. "If you don't take this proposition, we will bring in someone who will take it, and you'll probably lose much of your other practice to this competitor." I still refused. It still rankles me that my own country, my native state, the country that my people have been free in since before the revolution, would put such a proposition to anyone.

In 1941, I applied for and received a commission in the Navy Reserve. I really didn't expect to use it, but December 7, 1941 proved me wrong. In March, I began my active naval duties in Bremerton, Washington. Instead of being shipped to sea fairly soon, I was gradually shipped eastward. By June, I was at the Great Lakes Naval Training Station. In September, I was still there. A psychiatrist at Great Lakes remarked one evening "Howard, how does it happen that you're not on a destroyer?" "Why, doctor," I replied, "confidentially, the Bureau sent me here to check up on you." The man melted; he never would talk to me after that.

In order to overcome the boredom of dispensary life at Great Lakes, I again took up the armchair phi-

losophy of the physiologic position for delivery.

I wrote an article on the squatting position for delivery, showing that it was the physiologic position. While in the process of preparing the article, it occurred to me that this delivery position must also be best for the infant; it quickly became obvious to me that the physiologic position was indeed easier on the emerging child. Pressure on the whole fetus develops pressure on the brain in the cerebro-spinal fluid. The brain sinks, just as it would in a Cartesian Diver experiment. Things seemed to fit. The article was accepted for publication in the U. S. Naval Medical Bulletin. (It was not published, and I am informed that it subsequently has been lost. I have my copy and the correspondence.)

This did accomplish one thing. I was placed on duty with dependents' care from then on.

While in service, my first wife and I broke up. After being discharged, I started back to Shoshone, but spent some time with my parents in Pocatello. People wanted me to stay, wanted me to take care of their pregnancies. So I stayed and prospered. My wife and I met in 1946 and we were married in 1948. She is an R. N.

First chair

Shortly after we were married, I showed her my paper on the squatting position. She exclaimed, "you really have something here, boy!"

It took us a year to get the first table built. We didn't know how to go about it. Finally I took my idea to a local heavy machinery manufacturer and he built something out of 3/8 inch boiler plate steel. It had an impossible jack, was so heavy that the nurses could scarcely push it around. It did prove one thing: you could deliver a patient on a table, with the patient in a simulated squatting position, under a block anesthesia. Precautions were necessary.

About 25 mothers delivered on that chair, clumsy as it was. Most of the patients were given a low block anesthesia, a vaso pressor, and after the blood pressure had stabilized, they were put in a lithotomy position; the back of the table was elevated to the vertical, automatically placing the patient in a squatting position.

We are evolved through the ages to eat with our mouth. Certain safety factors are built into this process. For example, if we get appendicitis, we don't eat, thereby putting the bowel at rest.

This is a crude analogy; yet there must be a similar safety factor involved in the physiologic position. There is. If we were evolved to be born in the squat, then it is the safest for the being-born infant. The improving factor is the force of gravity. If this force were merely a simple dragging force on a hunk

of a solid, then surely, to protect that hunk of solid, our mothers would bear us towards the zenith in order to avoid too much tumult in the bearing.

But we are not a solid; fluid is interposed in and around us as we are transported from our inward sea to the outer air. So, hydraulic mechanics comes into the picture.

These features are expounded in papers under my signature in *Northwest Medicine* in 1951, 1953, and the *Western Journal of Surgery, Obstetrics and Gynecology* in December 1954.

New table

My wife pointed out to me that the table I was using was too heavy; one could be built that would be mobile, light, and make it unnecessary to lift the patients on and off carts and beds. Thus, it could be used to give the anesthetic, proceed with labor, and when the patient is stabilized blood-pressure-wise, the back would be elevated. Delivery completed, the patient could be transported back to her bed in the maternity floor; it would be necessary to lift her only once, from the table to her bed.

It took time for me to admit that my petite wife, who looks not at all like a mechanical designer, could improve on my boiler-plate table. Finally, not having the inclination to take time off to supervise such a venture, I consented to having her design and direct the construction of a light table. This was a most fortunate decision. She had designed and constructed two tables which we used in our two hospitals in Pocatello. They do the job we set out to do, perfectly.

We still need a jack; when we find someone who will build one to my wife's design, we'll have our perfect delivery table.

(I'm now convinced that women are much better mechanics on things that count. Hospital machinery which has to be used and moved by women should be designed by women.)

We took our table to Chicago in December 1954, to be in the Scientific Exhibit at the meeting of the American Committee for Maternal Welfare and the American Academy of Obstetrics and Gynecology.

It was received graciously by most, but very few converts were made.

I suppose that this conservative bit of radicalism is regarded as a bit of the cracked pot.

But you can't overcome the idea that if it's physiologic, it's best for the normal delivery. I like to keep a normal delivery really normal.

After we returned home, we decided that I really must complete my training and become board eligible. Hence, we gave up our practice to attend the University of Pennsylvania Graduate School of Medicine. Dr. Kimbrough, the professor of Ob-Gyn, has been most gracious to us. Dr. Ross B. Wilson, chief of

Ob-Gyn at Lankenau, kindly took me under his wing as his resident, and here we are.

So, my being a resident in my fiftieth year of life is something not simply explained; yet, as you can see, it is primarily the result of a crusade of a personal nature which comes, I suppose, to each of us in one degree or another.

I am fortunate that I have been able to pursue mine.

Those of you who get your training early in life are also fortunate. However, I can't say I would trade my hard way for your hard way. This has been fun.

Also, had I received my specialty training before my thirties, I doubt if I would have had an opportunity to learn of the physiologic position from that Mexican mother who, many years ago, sparked my interest in the subject, an interest that has grown stronger with the passing years.

Cancer Fellowships

The American Cancer Society has announced that Clinical Fellowships at the senior resident level for the academic year 1959-60 may be applied for by institutions accredited by the Council on Medical Education and Hospitals of the American Medical Association to give training in the following specialties and subspecialties, with emphasis on the diagnosis and treatment of cancer: internal medicine, malignant diseases, neurological surgery, obstetrics-gynecology, orthopedic surgery, otolaryngology, pathology, public health, radiology, surgery, and urology. Institutions will be notified of awards granted in June 1958.

Individual candidates should apply directly to an institution or to the American Cancer Society for information concerning fellowships. The annual stipend, tax exempt, is $3,600. Application forms are available from the Director of Professional Education, American Cancer Society, Inc., 521 West 57th Street, New York 19, New York. February 15, 1958 is the deadline for institutions submitting applications for the 1959-60 clinical fellowships.

"Burke and Hare, an awful pair . . ."

A Time to Die

The strangest "cadaver service" in history began when the needs of the medical school dissecting laboratories exceeded the supply of executed criminals provided by the courts.

Edward R. Bloomquist, M.D.

Rain, bitter cold, lashed through the night. Whipped by the wind it beat against the grey stone walls of the prison at Lilbertons Wynd, Edinburgh. Now and then, flashes of lightning revealed an angry, milling crowd. Alternately they glared at the prison and to the stark, impersonal gallows erected in their midst.

January 28, 1829. For scholars, a time for history. For an angry mob, a time for revenge. But for William Burke, condemned prisoner, impatiently pacing about the confines of his cell, a time to die.

This was an unusual position for Bill Burke. An intelligent, opinionated man, he was used to having his own way. Born in 1792, the son of a respected Irish laborer, it seemed unlikely he should end his life in his late thirties by dangling at the end of an executioner's rope.

Shoemaker

In his youth, Bill Burke had worked as a servant to a clergyman. Forsaking this, he went through apprenticeships as a weaver, baker, and finally a shoemaker. Early in life he married and settled down to


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LOU'S INN
DR. JOHN K. KOX

raise a family. Far from being a tranquil existence, however, the domestic scene was frequently punctuated by outbursts of Burke's uncontrollable temper. Then, one day, he insulted his father-in-law, and the subsequent unpleasantness sent him scurrying for cover to Scotland.

It's possible he might have returned, but another woman entered the picture.

The lady in point — Helen McDougal. Intriguing and enticing, at least to Burke, she inveigled him to live with her. In 1818 they settled down in a state of unmarried bliss. The arrangement was sufficiently interesting that Burke suffered expulsion from his church rather than leave his paramour and return to his family in Ireland.

In time the two found their way to Edinburgh, living in a beggars' hotel. Burke became a cobbler, with McDougal undertaking to sell the shoes. These funds were apparently inadequate to support their illegitimate existence for in the fall of 1827 Burke sought additional employment as a harvest worker. During this time he became involved with William Hare.

Frail man

It is difficult to understand what these two men had in common. Burke was tall, strong and cheerful in demeanor. Hare, a small frail man in his middle twenties, had a low forehead and curiously-shaped eyes; he was anything but physically attractive. His morose, brutal temperament was exceeded only by that of his newly acquired wife, the former Margaret Log.

Dressing, acting, and working as a man on the Union Canal, Margaret L. had met and taken a liking to Hare. Hare, a fish huckster, saw little reason to continue his work after his marriage, and even less reason when Margaret inherited a small, dismal, two-room boarding house from her previous spouse.

The pitiful boarding house income enabled Hare to exist in a semi-drunken stupor except on those uncomfortable occasions when his wife roused him sufficiently to take part time jobs.

Quartet

Thus, the unholy quartet of Burke, McDougal, Hare and Mrs. Hare joined. They moved into Log's boarding house, occupying one room and renting the remaining one to unfortunates who had no place else to go.

This period of time is of particular interest to medical historians. The close of the Napoleonic Wars brought a record enrollment in medical schools. It was an age of discovery; physicians in continental Europe were making remarkable strides in their study of anatomy.

Unfortunately for doctors in the British Isles, restricting laws made it impossible to obtain sufficient cadavers. Before the war, universities such as the one in Edinburgh

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solved this problem by having the instructor dissect the cadaver. In 1827, however, enrollment at Edinburgh exceeded 900 students and the only source of cadavers was criminals condemned to execution and dissection. The courts, out of touch with the problem, provided only a limited number of condemned criminals; within a short time, the demand for cadavers greatly exceeded the supply of executed criminals.

But the faculties in Edinburgh, having no intention of being left behind in either research or instruction, began taking bodies wherever they could find them. As a result a new brand of criminal arose. Whimsically, they were christened "The Resurrectionists."

For sale

At first, medical students eagerly responded to this educational challenge. In time, however, irate citizens raised such a fuss that all medical students were asked to sign a pledge not to indulge in the fascinating but somewhat dangerous sport of grave robbing. This forced anatomy laboratories to deal with unsavory individuals willing to take advantage of the legal loophole that a man's next of kin had the right of possession to his corpse and could, if he desired, sell the body.

Obviously, embarrassing questions were never asked of these scientifically inclined "relatives." Bodies were eagerly purchased, traces of fresh earth quickly removed, and soon were resting peacefully on an anatomy table.

By 1828 there were an estimated 200 professional grave robbers operating in and around Edinburgh. This, despite constant pressure exerted by indignant relatives upon lethargic public officials. Actually, the law wasn't involved. Property rights on dead bodies were nonexistent. The Resurrectionists, being honorable business men, were always careful to leave clothing and valuables behind.

Coincidence

By rare and unfortunate coincidence Burke and Hare inadvertently stumbled into this profitable enterprise. One evening just before Christmas, 1827, an elderly roomer, known to history as Donald, became ill and died. This was quite inconsiderate inasmuch as he had not as yet received his quarterly pension and paid his rent. After due consideration the landlords decided the best way to recoup the loss of their unpaid rent was to sell the body to the anatomists.

Shortly after the undertakers had finished their cursory work, Burke and Hare surreptitiously removed the body, substituting tanner's bark to give the coffin weight. Within a short time Donald's earthly remains were deposited in the laboratory of Dr. John Knox, one of Edinburgh's most brilliant and respected anatomists.

Returning home with 7 pounds 10 shillings in their pockets, a most logical and lucrative thought began to rattle around in their cerebrums. Gazing into Hare's droopy, watery eyes, Burge spoke of a plan that was to place them both in the annals of history.

Grave robbing, Burke reasoned, was out. It was too hazardous and strenuous a method of making a living. Then, too, the bodies were not always in tip top condition when they reached the laboratory. To Burke it seemed certain that an anatomist would be willing to pay an extra fee for "fresh" ones. He was correct.

Technique

Between February 12 and November 1, 1828, sixteen innocent victims met their death. (A more generous estimate, provided by the murderers, placed the number closer to thirty.) Their technique was unique. So much so that Burke's name became a by-word and is currently listed in the dictionary. Webster defines *burke* as a verb, transitive, meaning "to murder by suffocation, or with few marks of violence," and "to dispose of quietly, as by suppressing or shelving." This was the Burke and Hare method of operation.

Located on Tanner's Close *(close* being a Scottish term for a dead-end street), Log's boarding house supplied the proper atmosphere. Victims were enticed into the web, anesthetized by oral spirits, during which time their soul was distilled from their body, and carted off to the laboratory. The technique of suffocation consisted of Burke covering the victim's mouth and nose while Hare minimized his weak struggles. Several elderly men and women, even a mother and son, were disposed of in this manner.

As with all criminals Burke and Hare became careless. One of their early mistakes was the murder of Mary Patterson, a personable young devotee of the "oldest profession." Among her more intimate acquaintances were a number of medical students who thought it odd to find her body on an anatomist's slab when only the night before she had been quite active.

Edinburgh aroused

The furor scarcely subsided from this episode when the murderers eliminated the town imbecile, "daft Jamie," James Wilson. A lovable character, he was well known because of his prodigious memory for useless things. He could, for instance, tell you the exact number of street lamps in town.

The final blow was dealt when they killed Mary Dougherty, another well known local resident. With a surprising show of self-confidence, they insisted that the anatomy assistant of Dr. Knox pick up his own specimen. Taking one look at the room, the assistant confirmed suspicions which had been bubbling below the surface for several months.

At his suggestion, the law moved in on Log's boarding house. Within hours, all Edinburgh was aroused. A mob threatened to tear them to pieces as they were hustled off to jail. (Dr. Knox, receiver of the body, also was threatened in his home by the mob.)

Although she had played a significant role in the murders, Helen McDougal was not accused by the others. Hare's voluntary testimony condemned Burke to a sentence of hanging and dissection, a rather ironical twist of fate. Thousands clamored in vain for the death of Hare and Dr. Knox.

Execution

Morning, January 28, 1829. For William Burke, a condemned murderer, a time to die. By eight o'clock the rain had ceased, the short march to the gallows began. An estimated crowd of between 20,000 to 30,000 gathered to watch the event — a vengeful, bloodthirsty mob that continued to cry for the death of Hare as well as that of his convicted comrade.

This was no ordinary execution. It was a fashionable event. Thrifty householders sold rights to sit at windows overlooking the execution place. Purchasers of these rights had stayed in their places throughout the night to make certain they wouldn't lose their seats. Speculators bought rights to the use of high windows and roof tops and resold them at a significant profit.

Reporters of the day made the notation that Burke was the only apparently calm individual in the area. Dressed in an oversized black suit, he steadily marched to the trap, maintaining his self-control to the last. After the noose was placed around his neck, he stood motionless for a moment as the crowd hushed. Then, as though impatient to get it over with, he wiggled his hand as if signaling the executioner. The latter obliged.

Blind beggar

Death was not rest for the body of William Burke which later was removed to the laboratories of Dr. Monroe. There, in the sight of students whose enthusiasm was so great and number so many that police were required to prevent interference, the body of Burke was dissected.

Prior to this formality, however, a phrenologist, "Doctor" George Combe, applied his scientific fingers to the bumps on Burke's head.

They were, he said, just as he expected. The bump of badness had hypertrophied.

History does not record the fate of Margaret Hare. She disappeared completely. Helen McDougal died in poverty somewhere in Australia. As for Hare, he worked for a while as a plasterer's apprentice. One day fellow workmen discovered his identity. They expressed their tender affection by tossing him into a lime pit. He recovered, but finished his

life staggering through the streets of Edinburgh a blinded beggar.

Shortly after trial, the citizens of Edinburgh turned their attention to Dr. Knox. Although exonerated by both court and college authorities as being technically innocent of any crime, public opinion eventually forced him to leave Edinburgh.

Williams and Bishop

Scotland's problem soon was repeated in London. Williams and Bishop, resurrectionists, were tried for the murder of a 14-year-old boy. During the trial, it became clear that as many as 60 individuals had been murdered by London's counterparts of Burke and Hare. The method of the murders was different. A potent "cadaver cocktail" of rum laced with laudanum was given the victims. The drunken doomed were then hung by the ankle, head down in a deep well. Meantime, Williams and Bishop would make the rounds of the dissecting rooms, make a sale, and promptly effect delivery of a fresh cadaver. Their undoing was the fact that the young boy had struggled while being transported to the well and had sustained a severe scalp laceration which led the laboratory steward to suspect foul play.

Forty thousand people watched and cheered the hanging of Williams and Bishop. Ten days later, a bill to regulate schools of anatomy was introduced in the House of Commons.

The legislature now felt sufficient stimulation and in 1832 Parliament passed the Anatomy Act providing that all unclaimed bodies could be given to medical schools for dissection. Royal assent made the Act law.

Interestingly, the influence of William Burke lingers on. His skeleton can still be seen as an osteological specimen hanging in the museum of Edinburgh. It is labelled "WILLIAM BURKE, THE MURDERER." His name has been immortalized in history. In twelve short months he accomplished more than had all the leading scholars in 300 years of pleading.

He aroused people to think. They in turn forced indifferent legislators to act and overrule existing archaic laws. And science continued to advance with less hindrance. Quite inadvertently and certainly unintentionally the influence of this wretched and immoral life has contributed to a safer and more intelligent existence for all of us.

Cancer and the Law

Occupational cancer and cancer allegedly caused by trauma are the two most frequently litigated types of cancer cases. Where aggravation of an existing cancer is involved, both medical and legal thinking hold it probable that trauma can activate a dormant cancer or increase the pace of an active cancer.

George A. Friedman, M.D., LL.M.

Heart disease is the first, and cancer is the second cause of death in the United States. More than 500,000 new cases of cancer are being diagnosed in this country each year. Out of every 100 newborn, 32 may be expected to develop this dread disease—3 by the age of 45, 14 by the age of 65, and 23 by the age of 75.[1]

There is no one single cause of cancer. While the etiology of most cancers is still unknown, factors responsible for the development of some malignant tumors have been determined. Most of these involve chronic irritation of some type and are the subject of the two most frequently litigated cancer cases: occupational cancer and cancer allegedly caused by trauma.

Occupational cancer

An occupational tumor is one which arises from contact with some exogenous agent, physical or chemical, brought about by some phase of the individual's regular work. Continued and prolonged contact leads to the proliferation of cells possessing the characteristics of cancer.

A telephone lineman repeatedly jammed his spurs, which were strapped to his legs, on telephone poles, which continually damaged

the skin of his ankles. The irritation was prolonged over a period of years until it caused a cancer of the skin.[2] Here, in both the medical and legal opinion, repeated mechanical trauma produced the tumor.

Constant irritation of the site of the tumor is essential to proof that the occupational hazard produced the cancer. Deceased operated a machine which turned out building blocks made of ashes, sand and cement. A concomitant of this type of work was entrance of sand into the shoes and feet of workers. Deceased had a nevus on his foot which he claimed became irritated by the sand and subsequently cancerous.

The court held that there was no evidence that the nevus was irritated constantly by the sand before the cancerous development, especially since deceased had only worked in the sand for one month prior to his tumor formation.[3]

Certain agents such as aniline dye, tar, paraffin, pitch, actinic rays, and particularly coal tar and petroleum products are described to be carcinogenic. Serious responsibility is placed on the employer in industries involving these agents to employ protective measures to keep its workers safe.

Courts have not limited the field to these medically known carcinogenic agents, but have held in other cases that other chemical agents that have never been known to be carcinogenic may cause cancer.

Thus, the court found for the plaintiff in *Boal v. Electric Storage Battery Co.*, a 1938 Federal case.[4] Boal had worked in the pickling industry for more than ten years; one of the hazards in his work was the inhalation of sulphuric acid mist. He first developed an ulcer on the underside of his tongue which later developed into cancer. The court found that the precautions taken by the defendant to prevent inhalation of the acid mist were not up to the standards of the industry, and that the development of cancer on Boal's lip was a result of the acid mist experience. Despite the fact that medically sulphuric acid has not been accused of producing industrial cancers, and despite the fact that no other incidents of cancer had arisen among workers, the court had reached its decision. There was ample medical testimony to the effect that the cancer had been caused because of the exposure to the mist.

Legal cause

In cases of alleged occupational cancer, where repeated trauma or prolonged irritation from industrial chemicals can be shown, the consensus of medical opinion will admit a legal cause for cancer, especially if the alleged cause is a known carcinogenic agent.

Thus, in these cases there are accepted medico-legal tests to prove or disprove causation:

- Is the alleged agent known to be carcinogenic?
- Have other workers in similar

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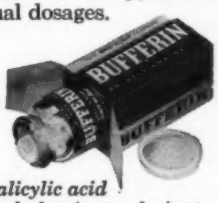

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industries using similar agents developed cancers similar to claimant?

- How long has claimant been exposed? Is this exposure period similar to other cases?
- Is the site of the cancer the site of the exposure?

Trauma and cancer

The consensus of medical opinion is that a single blow cannot cause a cancer.[5] Despite this overwhelming scientific opinion, courts have time and again held to the contrary. This presents a medical problem only because the issue arises so frequently in the courts. In *Canon Reliance Coal Co. et al v. Industrial Commission of Colorado*[6], the court found that a mere blow to the cheek by a piece of coal caused death a year and a half later by cancer. Two physicians testified to the possibility that the blow to the cheek by a piece of coal caused death since the blow to the cheek was one of the possible causes of the malignant growth.

They admitted further that they did not know why cancer resulted in one such case and not in another. The court found the evidence "substantial and credible."

A 1940 case[8] upheld a Workmen's Compensation Board's decision that an electrical shock by the passage through claimant's body of an electrical current containing 2400 volts caused cancer to the liver and gall bladder and subsequent death. The medical experts stated contrary opinions. The court found it had to uphold the decision, despite the fact that "as laymen, we might experience difficulty in concluding the cancerous condition resulting in the death of Thomas Day was produced by the electrical shock he received."[9]

In *U. S. Casualty Co. v. Ind. Acc. Co.*,[10] left breast of plaintiff was struck by a heavy box of batteries causing a "cracked rib" and injuring the soft tissues of the breast. Eight months later a cancer of the breast developed. The report of the plaintiff's doctor received in evidence, stated that the "trauma most probably instituted the formation and growth of the tumor." The same physician also testified that "single trauma" could be a "provoking cause" of breast cancer. And further he stated that there were numerous reports in medical literature showing a single trauma as responsible for a cancer. Verdict for the plaintiff was upheld on appeal.

Substantial cause

In *Menard v. Phil. Trans. Co.*,[11] plaintiff was knocked down to the street by the sudden starting of defendant's street car. She received injuries to an ankle and knee and a discoloration of a breast which later disappeared. After a month a cancerous growth was noted in the same location as the area of the discoloration caused by the accident. The breast was later removed by a surgeon who testified for his patient

and stated that there was "disparity" among medical authorities as to whether a single trauma can cause cancer. Her family physician testified that it was impossible to determine if another factor (other than trauma) also "contributed" to the cancer.

The trial judge instructed the jury that the defendant was liable if the injury was the *sole* or *substantial* contributory *cause* of the cancer. The jury found for the plaintiff in the sum of $25,000. The appellate court held that the medical testimony of plaintiff's doctors sufficiently related the cancer of the breast to the injury and that the charge of the trial judge to the jury was correct.

In those cases where causation has been rejected, the absence of injury to the cancer site has been an important deciding factor. In *Smith v. White Pine Lumber Co.*,[12] the court held that a fall fracturing a femur did not cause cancer in the prostate. Similarly, a fracture of tibia and fibula is not a cause of cancer in the liver.[13]

Minimal criteria have evolved from case law for establishing causal relationship between trauma and cancer:

- Previous integrity of the wounded part
- proof of injury
- time interval elapsing
- site of injury, i.e., type of tumor must be reasonable and logical for location of trauma
- bridging signs — objective persistent signs, such as swelling, disfigurement, lack of healing

While studies reveal that rarely will a single blow convert a pigmented mole into a malignant cancer,[14] where the existing tumor is already malignant, medical opinion will then concede that aggravation of an existing cancer is probable.

A lump of coal struck an ulcer on a workman's lip, causing bleeding and then subsequent swelling. The ulcer had existed for several years, but it grew much more rapidly after the blow. The trauma had sufficient force to cause perceptible damage to the pre-existing tumor and compensation was granted to the injured man.[15]

In a 1950 Georgia case[16] the jury's verdict was upheld which found that an injury received by the deceased to his leg aggravated the condition. Cancer had developed in the knee which was traumatized. This was held to be a *substantial* cause of deceased's death.

Smog

In *Hagy v. Allied Chemical & Dye Corp.*,[17] plaintiff drove through a smog bank outside of defendant's plant. The smog consisted principally of sulphuric acid vapor and sulphuric dioxide. Due to atmospheric conditions, the heavy smog was not carried away from the smoke stacks of defendant's plant and as a result, defendant's workers had to wear gas masks at the time. Plain-

tiff passed this plant while driving and lost consciousness because of the heavy smog. She received medical treatment. Within a few months it was discovered that she had laryngeal cancer and laryngectomy was carried out.

Plaintiff alleged in her suit that a dormant cancer had been "lighted up" because of exposure to the smog fumes. She was awarded $25,000 by the jury since the court held that it was the jury's province to decide between conflicting medical evidence.

The physician thinks in terms of diseases following a certain clinical pattern. The cause or pathogenesis of disease to him resides in its inciting agent. The pneumococcus is the cause of pneumonia. In the case of cancer for the physician, in this sense there is as yet no known cause. He finds it difficult to admit the existence of any extraneous factor in the environment as a causative agent.

The lawyer's interests are outside the field of pathology. Cause in the lawyer sense is one factor in the process of adjustment toward social harmony. The lawyer wishes to shift the burden of harm from the injured to some other. The "other's" part in the occurrence of harm must be sufficient to make it appear that he ought to be liable.

The element of causation ascribed to the defendant doesn't have to be the *sole* cause or even its main cause, but a cause of sufficient proportion in the light of his relationship to the case to make it seem equitable for him to bear the cost. This sufficient cause to lawyers is called the proximate cause.

The medical definition of cause and the legal definition of cause do not therefore coincide. The physician's concepts and views relating to trauma and cancer reside within the science of medicine. A lawsuit is an artistic thing; it has no semblance to accurate scientific reasoning. Medical opinions differ so much inside lawsuits because they are simply formal expressions by so-called experts.

Greater understanding between the medical and legal professions is necessary in these spheres. Physicians must realize that lawyers are engaged in a partisan proceeding to achieve social harmony. Lawyers must realize that differing opinions of experts are products of this system.

Cancer and smoking

There are at least two cases in court at this writing in which plaintiffs claim cigarette smoking either caused or aggravated a cancer of the lungs.[18] Neither case has been concluded.

It is impossible to foretell the decision since medical opinion on the subject is sharply divided. Past legal precedents are not conclusive since almost every case in which plaintiffs claimed some exogenous agent caused or aggravated a cancer

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was decided by a jury on the basis of facts of that particular case, and not by a judge as a matter of law.

Medical literature contains many reports linking heavy cigarette smoking with cancer of the lungs.[19] Moreover, among the known carcinogenic chemicals which may occur in tobacco or tar, carcinogenic aromatic hydrocarbons and arsenicals have to be considered.[20] Although specific aromatic hydrocarbons or "known" cancer producing agents have not been definitely traced to tobacco gases, still arsenic in tobacco gases has not been exonerated completely as one of the possible causes of lung cancer.[21]

Plaintiffs can cite the coincidence of the increase of cancer with the increase of cigarette sales. Case law, as far as it goes, is highly in favor of plaintiffs. Judges have emphasized time and again that unless the verdict is contrary to the weight of the evidence, these cases are within the province of the jury. Verdicts which have been contrary to best available medical evidence have been allowed to stand.[22]

Jury verdicts have been even more numerous against defendants in cases alleging aggravation of existing cancer.[23]

One reason for these verdicts is probably the fact that the cause of many cancers is unknown. A physician must testify that the alleged cause is a possible cause and the jury is permitted to translate this possible cause into the actual cause.

As the Supreme Court said in *Lavender v. Kurn:*

"It is no answer to say that the jury's verdict involved speculation and conjecture. Whenever facts are in dispute or the evidence is such that fair-minded men may draw different inferences, a measure of speculation and conjecture is required on the part of those whose duty it is to settle the dispute by choosing what seems to them to be the most reasonable inference. Only when there is complete absence of probative facts to support the conclusion reached does a reversible error appear."

If medicine does not know the cause for an act, the law may find one from the evidence other than medical:

"To meet the burden in the present case, it was proved that Smith had been in good health prior to the accident, and that injury resulted therefrom, making necessary immediate medical attention, which was continued regularly until the time of his death. No other intervening cause for the sudden breakdown appeared—a matter which is to be considered."[25]

There is ample medical literature on the defendant's side, too.[26] Dr. William C. Hueper of the National Cancer Institute told public health organizers recently that the pattern of increase in lung cancer coincides not only with the pattern of increased smoking, but more closely with the use of cancer-causing substances in

industry and their appearance in engine-exhaust fumes; in other words, air pollution.[27]

Statistics are not free from manipulation. Defendants will point out, there is no proof, just supposition. To substantiate this, they will bring up the other possibilities besides tobacco smoke which may have been the cause of cancer.

Further, is defendant a guarantor that smoking is harmless? Are they liable to those persons who developed lung cancer before it was known that cigarette smoking was harmful? Are plaintiffs who continue smoking or begin smoking contributorily negligent in view of the publicity the subject has received?

Will there be injurious reliance because of the sense of false security through the use of filter-tip cigarettes? *Should cigarettes be labelled on the package as dangerous?*

Malpractice, quackery

An elderly farmer with cancer of the lips went for treatment to Dr. Baldor, a disciple of the Koch method. The treatment consisted of shots of glyoxylide. Dr. Baldor resorted to none of the generally accepted methods of treating cancer, namely, x-ray, radium or surgery. After several months of unsuccessful treatment, Baldor stopped treatment and plaintiff turned to physicians who use the conventional approaches to the problem, which by this time were also unfruitful. A $65,000 verdict for the plaintiff against Dr. Baldor was upheld by the Supreme Court of Florida.[28] However, the court specifically refused to label the Koch treatment as malpractice, despite the label of quackery given to it by the American Medical Association. The court believed itself unqualified to choose between differing medical treatments. Baldor's malpractice consisted in not attempting more conventional methods as soon as he discovered the Koch treatment was unsuccessful.

Other attempts have been made by medical associations to have courts label the Koch treatment as malpractice or quackery, but courts have refrained from doing this for various reasons. In the case of *Smith v. Dept. of Reg. & Education et al.*,[29] Dr. Smith allegedly cured a Mrs. Boehne of cancer by the Koch method. An attempt was made by a medical committee to revoke his license. Smith alleged that the committee was biased since all its members were also members of the A.M.A. which had labelled the Koch treatment as quackery.

Furthermore, the committee took no outside evidence on the efficacy of the Koch method but relied on its own knowledge. The court held a new committee should be formed which should hear outside evidence on the subject of the validity of the Koch treatment as good medical practice.

Cases have set up certain medical standards. Some criteria for estab-

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*'*A.S.A. Compound' (Acetylsalicylic Acid and Acetophenetidin Compound, Lilly)*

1. *Gruber, C. M., Jr.: J. A. M. A., 164:966 (June 29), 1957.*

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lishing a diagnosis of cancer were determined by *U. S. v. Hoxey Cancer Clinic,*[30] namely, the importance of biopsy and pathological examination. In this case, which arose under the Federal Food, Drug and Cosmetics Act, the sale of a liquid as a cancer cure was enjoined. The advertisements that this liquid would cure cancer were false and misleading.

A similar case was *Koch v. FTC.*[31] The Federal Trade Commission issued a cease and desist order against Koch Laboratories for making false, misleading and deceptive statements about medicinal preparations that would allegedly cure cancer. There was no therapeutic value to the cancer cure. The court pointed out in its opinion that no biopsies were taken, no examinations were made and no effort was made to determine whether a prospective purchaser had cancer at all.

None of these cases, however, labelled the Koch or similar treatments as quackery or malpractice.

The question whether certain trauma caused cancer arises in malpractice cases also. In *Gluckstein v. Lipsett,*[32] a possible cancer of scar tissue followed cosmetic surgery on plaintiff's breasts. The court held that defendant physician was guilty of malpractice and that plaintiff's resulting disfigurement was worth $115,000 damages. Physicians testified only to the possibility that the nodules which developed on the breasts and which were not present prior to the operation might become cancerous. No tests were made to determine malignancy and the malignant growth was small. This, together with serious disfigurement and pain, resulted in the large verdict.

The court held that conflicting evidence as to whether the lumps in plaintiff's breasts were malignant growths resulting from plastic surgery was a question for the jury. This would determine the amount of damages to be awarded from the malpractice.

REFERENCES

1. Blackwell, T. J. "Medical Malpractice in the Treatment of Cancer," Ins. Law Journal (1956) 472 Jl '56.
2. Harris v. Southern Carbon Co. 162 So. 430 (La. App. 1935).
3. Bollinger v. Niagara Supply Co., 122 N. J. L. 512. 6A. 2d 396 (1939).
4. 98 F. 2d 815 (3rd Cir.).
5. The following editorial appeared in 1944 in the Journal of the American Medical Association:

"In spite of the humanitarian intent of the declaration that a single accident injury can cause cancer, justice is not being done and the public is receiving a wrong impression in regard to the cause of cancer. Undoubtedly awards . . . were based on medical testimony, but such testimony simply cannot be regarded as conclusive. Decisions that single accidental injuries have caused cancer or can cause cancer should be appealed to tribunals which will give the problems involved adequate competent attention in the light of present knowledge."

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1. Alexander, Edythe L.: Mod. Hosp., May, 1957.

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1907 1957

Editorial, "Cancer as a Result of Accidental Injury;" 125 J.A.M.A. 277 (1944).

6. 72 Colo. 477, 211 P. 868 (1922).

7. Ibid., at p. 869.

8. City of Owensboro v. Day et al. 284 Ky. 644, 145 S.W. 2d, 856.

9. Ibid., at p. 861.

10. 265 P. 2d 35; 122 Cal. App. Rep. 2d, 427 (1954).

11. 103 A. 2d 681; 376 Pa. 497 (1954).

12. 53 Idaho 808, 27 P. 2d. 965 (1933).

13. Posan v. Indus. Commission, 61 Ohio App. 530, 22 N.E. 2d 1014 (1939).

14. Moritz, Pathology of Trauma; Ch. 111, 1942. Ewing, Modern Attitudes Towards Traumatic Cancer 19 Arch. Path. 690 (1935).

Cf. Louisville Ry Co. v. Koob, 190 Ky. 283, 227 S.W. 291 (1921) where a woman bruised her breast which contained a pre-existing tumor. Breast was removed because it was felt trauma might transform the benign tumor into a malignant variety. Surgeon's fear of malignant degeneration as a reasonable probable result of the trauma was shared by the court which upheld damages for the breast's removal.

15. Sepesi v. Pittsburgh Coal Co., 114 Pa. Sup. 385, 174 A. 590 (1934).

16. Atlantic Coast Line R.R. Co. v. Brown, 62 S.E. 2d 736, 82 Ga. App. 889.

17. 265 P. 2d 86, 122 Cal. App. Rep. 2d 361 (1954).

18. In 1954 Ira C. Lowe filed suit in St. Louis against four leading cigarette manufacturers and a grocery chain claiming damages worth $25,000. Time, March 22, 1954, P. 50.

The second case is Pritchard v. Liggett and Myers Tobacco Co., 134 F. S. 829 (Pa., 1955).

19. Numerous such articles are listed in "Cancer of the Lung-Breach of Warranty in Cigarette Sales?" Current Medicine 1:35 S. '54, footnotes 1-13.

20. Hueper "Lung Cancer and the Tobacco Smoking Habit", Industrial Med. & Surg., 23:13, Jan. 1954, Internat. Med. Digest, 64:5, May 1954, p. 267.

21. Id.

22. See cases above, pp. 4-7, where juries held that a single blow caused cancer.

23. Hagy v. Allied Chemical and Dye Corp., discussed above, p. 7 is a prime example.

24. 327 U. S. 645,653, 66 S. Ct. 740,741 (1946).

25. Smith v. Primrose Tapestry. 131 A. 703,704,285 Pa. 145 (1926).

26. Cur. Med. 1:16 N. '54.

27. Time, Nov. 26, 1956, p. 50.

28. J. L. Rogers v. Dr. Julius F. Baldor and First Palma Ceia Hospital, 81 So. 2d 658, 4 Negl. Cases 2d 120 (Sup. Ct. Fla. 1954).

29. 412 !!l. 332, 106 N.E. 2d 722 (1952).

30. 198 F. 2d 273 (5th Circ. 1952).

31. 206 F. 2d 311 (6th Circ. 1953).

32. 209 P. 2d 98, 93 Cal. App. 2d 391 (1949).

Licensure for Foreign Graduates

in Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina and South Dakota

OREGON

The State of Oregon by statute does not accept foreign graduates.

OKLAHOMA

The State of Oklahoma requires that an applicant for medical licensure be:

- A full citizen of the U. S.
- Graduated from a medical school that at the time of his graduation was of the caliber of medical schools approved by the AMA.

In addition, applicant must serve a one year rotating internship in a U. S. hospital approved by the Oklahoma Board of Medical Licensure.

For further information write to: Dr. E. F. Lester, Secretary, 813 Braniff Building, Oklahoma City, Oklahoma.

PENNSYLVANIA

In Pennsylvania, a foreign graduate who wishes to take the medical licensure examination must:

- Have first citizenship papers.
- Be a graduate of a medical school that meets the standards set up by the AMA.
- Serve an internship of at least one year, preferably in an approved hospital in Pennsylvania. (Must have a temporary license for postgraduate training, a special certificate which may be obtained from the Board of Medical Examiners.)

For further information write to: Mrs. Margaret G. Steiner, Acting

"Eighty-seven patients with various infections of the skin were treated over a period of six weeks with [Signemycin]. Excellent or good results were achieved in sixty-seven, including eleven of twenty-two patients refractory to other antibiotics."

Lewis, H. H.; Frumess, G. M., and Henschel, E. J.: Rocky Mountain M. J. *54*:806 (Aug.) 1957.

"Results of treatment with oleandomycin-tetracycline of 50 [respiratory] infections due to resistant organisms and 40 infections due to sensitive organisms are very encouraging. In some of these patients, [Signemycin] was lifesaving, and in others surgery was made unnecessary. This confirms other reports."

Shubin, H.: Antibiotic Med. & Clin. Therapy *4*:174 (March) 1957.

Based on case reports documented by independent investigators in 26 countries abroad, the clinical response obtained with Signemycin in 1404 patients with a wide variety of infections was successful in 1329 patients; in 13 cases only was it necessary to discontinue therapy because of side effects.

Report on 1404 Cases Treated with Signemycin: Medical Department, Pfizer International. Available on request.

Signemycin "appears to be effective in the treatment of most general surgical infections, including virulent staphylococcus aureus infections. In some cases these infections had been clinically resistant to other antibiotics. The drug is apparently well tolerated."

Levi, W. M., and Kredel, F. E.: J. South Carolina M. A. *53*:178 (May) 1957.

Of 50 patients with various infectious processes, 26 had not responded to previous antibiotic therapy. With Signemycin "96% of the mixed infections were clinically controlled . . . . and in none of the cases was there any reason to discontinue the drug."

Winton, S. S., and Chesrow, E.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 55.

Signemycin in 79 patients with severe soft-tissue infections: "The average response of these cases was excellent and inflammatory symptoms subsided with almost uniform rapidity. . . . Side reactions were minimal. . . ."

LaCaille, R. A., and Prigot, A.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 67.

Five groups of patients (total 211) with acne were treated with one of five antibiotic agents, including Signemycin (55 cases). Signemycin, in 8 weeks, rapidly attained and maintained the highest percentage of efficacy of antibiotic agents tried.

Frank, L., and Stritzler, C.: Antibiotic Med. & Clin. Therapy *4*:419 (July) 1957.

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RHODE ISLAND

Rhode Island does not accept graduates of foreign medical schools unless they were legal residents of Rhode Island prior to their going abroad to study medicine.

For residents of Rhode Island who have been graduated from a foreign school approved by Rhode Island and have obtained their pre-professional medical training in the U. S. or Canada, first papers are required.

One year of rotating internship and a second year of internship, residency or postgraduate study is also required. Candidates who commence their internship on or after 1955, must serve the internship in Rhode Island.

For further information write to: Mr. Thomas B. Casey, Administrator, 366 State Office Building, Providence, Rhode Island.

SOUTH CAROLINA

Graduates of foreign medical schools are not permitted to practice in South Carolina.

SOUTH DAKOTA

A graduate of an approved foreign medical school who wishes to take the medical licensure examination in South Dakota must:

- Have first papers.
- Serve a one year internship in a hospital in South Dakota of over 50 beds.
- Graduates of approved schools are granted licenses on the same basis as American graduates.

Graduates of unapproved foreign schools may receive a temporary license to practice up to four years in an area of "medical need" if they have satisfactorily completed all other requirements except graduation from an approved school.

Reciprocity may be granted to foreign medical graduates only if they have already met identical requirements for full licensing in their present state of licensure (one year of internship plus four years of practice in a community needing a physician).

For further information write to: Mr. John C. Foster, Executive Secretary, 300 First National Bank Building, Sioux Falls, South Dakota.

WASHINGTON REPORT

Current news items of special interest to residents and reserve medical officers, reported directly to your journal by the Army, Navy, Air Force, Veterans Administration and the Public Health Service

Draft Act

CHANGES . . .

In an executive order dated October 17, 1957, President Eisenhower directed that certain amendments to the Selective Service Regulations be effected.

Since many of these changes affect draft provisions as they apply to interns and residents, the complete text of the executive order (10735) follows. It is suggested that doctors in doubt as to their current draft status check with their local draft board.

EXECUTIVE ORDER NO. 10735

Amending the Selective Service Regulations. By virtue of the authority vested in me by the Universal Military Training and Service Act (62 Stat. 604), as amended, I hereby prescribe the following amendments of the Selective Service Regulations prescribed by Executive Orders No. 10001 of September 17, 1948, No. 10167 of October 11, 1950, No. 10292 of September 25, 1951, No. 10420 of December 17, 1952, No. 10505 of December 10, 1953, No. 10659 of February 15, 1956, and No. 10714 of June 13, 1957, and constituting portions of Chapter XVI of Title 32 of the Code of Federal Regulations:

1. Section 1602.13 of Part 1602, *Definitions,* is revoked.

2. (a) Paragraph (b) of Section 1622.13 of Part 1622, *Classification Rules and Principles,* is amended by striking out the word "or" at the end of subparagraph (3), by strik-

in the menopause . . . Dexamyl* smoothly and *subtly* restores a sense of serenity, security, well-being and self-esteem. (And, in most cases, little else is required.)

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ing out the period at the end of subparagraph (4) and inserting in lieu thereof a semicolon and the word "or," and by adding a new subparagraph (5) to read as follows:

"(5) Periods of active duty performed by medical, dental, or allied specialists in student programs prior to receipt of the appropriate professional degree or in intern training."

(b) Paragraph (b) of section 1622.40 of Part 1622 is amended by striking out the word "or" at the end of subparagraph (3), by striking out the period at the end of subparagraph (4) and inserting in lieu thereof a semicolon and the word "or," and by adding a new subparagraph (5) to read as follows:

"(5) Periods of active duty performed by medical, dental, or allied specialists in student programs prior to receipt of the appropriate professional degree or in intern training."

(c) Section 1622.44 of Part 1622 is amended to read as follows:

"1622.44 *Class IV-F: Physically, mentally, or morally unfit.* (a) In Class IV-F shall be placed any registrant (1) who is found to be physically or mentally unfit for any service in the Armed Forces other than a registrant who has been separated from the Armed Forces because of physical or mental disability by an honorable discharge or a discharge under honorable conditions or an equivalent type of release from service and who is eligible for Class IV-A under the provisions of section 1622.40; (2) who, under the procedures and standards prescribed by the Secretary of Defense, is found to be morally unacceptable for any service in the Armed Forces; (3) who has been convicted of a criminal offense which may be punished by death or by imprisonment for a term exceeding one year and who is not eligible for classification into a class available for service; or (4) who has been separated from the Armed Forces by discharge other than an honorable discharge or a discharge under honorable conditions, or an equivalent type of release from service, and for whom the local board has not received a statement from the Armed Forces that the registrant is morally acceptable notwithstanding such discharge or separation.

"(b) In Class IV-F shall be placed any registrant in the medical, dental, and allied specialist categories who has applied for an appointment as a Reserve officer in one of the Armed Forces in any of such categories and has been rejected for such appointment on the sole ground of a physical disqualification."

3. (a) Section 1631.4 of Part 1631, *Quotas and Calls,* is amended to read as follows:

"1631.4 *Calls by the Secretary of Defense.* The Secretary of Defense may from time to time place with the Director of Selective Service a call or requisition for a specified number of men required for induction into the Armed Forces. The

Secretary of Defense may also from time to time place with the Director of Selective Service a call or requisition for a specified number of men in any medical, dental, or allied specialist category required for induction into the Armed Forces. The Secretary of Defense shall present such calls or requisitions to the Director of Selective Service not less than 60 days prior to the period during which the delivery and induction of such men are to be accomplished."

(b) Section 1631.5 of Part 1631 is amended to read as follows:

"1631.5 *Calls by the Director of Selective Service.* (a) The Director of Selective Service shall, upon receipt of a call or requisition from the Secretary of Defense for a specified number of men to be inducted into the Armed Forces, allocate such call or requisition among the several States. The Director of Selective Service in allocating such call may provide for the selection of persons by age group or groups whenever he deems such action is necessary in order that persons in older age groups shall, on a nation-wide basis, be selected and delivered for induction before persons in younger age groups.

"(b) Upon receipt of a call or requisition from the Secretary of Defense for a specified number of men in a medical, dental, or allied specialist category to be inducted

into the Armed Forces, the Director of Selective Service shall allocate such call or requisition among the several States.

"(c) The Director of Selective Service shall issue a Notice of Call on State (SSS Form No. 200) to the State Director of Selective Service of each state concerned (1) for the number of men allocated to each State, or (2) for the number of men in the medical, dental, or allied specialist category allocaated to each State. The Director of Selective Service shall send two copies of each such Notice of Call on State (SSS Form No. 200) to the Secretary of Defense."

(c) Section 1631.6 of Part 1631 is amended to read as follows:

"1631.6 *Calls by State Director of Selective Service.* The State Director of Selective Service, upon receiving a Notice of Call on State (SSS Form No. 200) from the Director of Selective Service shall (a) allocate to the local boards concerned within his State (1) the number of men which his State is called upon to furnish for service in the Armed Forces, or (2) the number of men in the medical, dental, or allied specialist category which his State is called upon to furnish for service in the Armed Forces, and (b) issue to each local board concerned a Notice of Call on Local Board (SSS Form No. 201) directing the local board to select and deliver for induction (1) the number of men allocated to the local board, or (2) the number of men in the medical, dental, or allied specialist category allocated to the local board. The State Director of Selective Service shall send a copy of each Notice of Call on Local Board (SSS Form No. 201) to the commanding officer of the joint examining and induction station to which the selected men are directed to report for induction."

(d) (1) Paragraph (a) of section 1631.7 of Part 1631 is amended to read as follows:

"(a) Each local board, upon receiving a Notice of Call on Local Board (SSS Form No. 201) from the State Director of Selective Service (1) for a specified number of men to be delivered for induction, or (2) for a specified number of men in a medical, dental, or allied specialist category to be delivered for induction, shall select and order to report for induction the number of men required to fill the call from among its registrants who have been classified in Class I-A and Class I-A-O and have been found acceptable for service in the Armed Forces and to whom the local board has mailed a Certificate of Acceptability (DD Form No. 62) at least 21 days before the date fixed for induction: *Provided,* That a registrant classified in Class I-A or Class I-A-O who is a delinquent may be selected and ordered to report for induction to fill an induction call notwithstanding the fact that he has not been found acceptable for service in the

Armed Forces and has not been mailed a Certificate of Acceptability (DD Form No. 62): *And provided further*, That a registrant classified in Class I-A or Class I-A-O who has volunteered for induction may, if an appeal is not pending in his case and the period during which an appeal may be taken has expired, be selected and ordered to report for induction notwithstanding the fact that he has not been found acceptable for service in the Armed Forces and regardless of whether or not a Certificate of Acceptability (DD Form No. 62) has been mailed to him. Such registrants, including those in a medical, dental, or allied specialist category, shall be selected and ordered to report for induction in the following order:

(1) Delinquents who have attained the age of 19 years in the order of their dates of birth with the oldest being selected first.

(2) Volunteers who have not attained the age of 26 years in the sequence in which they have volunteered for induction.

(3) Nonvolunteers who have attained the age of 19 years and have not attained the age of 26 years and who do not have a child or children with whom they maintain a bona fide family relationship in their homes, in the order of their dates of birth with the oldest being selected first.

(4) Nonvolunteers who have attained the age of 19 years and have not attained the age of 26 years and who have a child or children with whom they maintain a bona fide family relationship in their homes, in the order of their dates of birth with the oldest being selected first.

(5) Nonvolunteers who have attained the age of 26 years in the order of their dates of birth with the youngest being selected first.

(6) Nonvolunteers who have attained the age of 18 years and 6 months and who have not attained the age of 19 years, in the order of their dates of birth with the oldest being selected first.

In selecting registrants in the order of their dates of birth, if two or more registrants have the same date of birth they shall, as among themselves, be selected in alphabetical order."

(2) Paragraph (b) of section 1631.7 is redesignated as paragraph (c) and a new paragraph (b) is added to section 1631.7 to read as follows:

"(b) The term 'child' as used in this section shall include a legitimate or an illegitimate child from the date of its conception, a child legally adopted, a stepchild, a foster child, and a person who is supported in good faith by the registrant in a relationship similar to that of parent and child but shall not include any person 18 years of age or over unless he is physically or mentally handicapped."

4. Section 1641.7 of Part 1641. *Notice*, is amended to read as follows:

"16.1.7 *Reporting by registrants of their current status.* (a) It shall be the duty of every classified registrant to keep his local board currently informed of his occupational, marital, family, dependency, and military status, of his physical condition, of his home address, and of his receipt of any professional degree in a medical, dental, or allied specialist category. Every classified registrant shall, within 10 days after it occurs, report to his local board in writing every change in such status and in his physical condition and home address and his receipt of any such professional degree.

"(b) A classified registrant shall submit to his local board in writing all information which the local board may at any time request from him concerning his occupational, marital, family, dependency, or military status or his physical condition or his receipt of a professional degree. The registrant shall submit such information to his local board within 10 days after the date on which the local board mails him a request therefor, or within such longer period as may be fixed by the local board."

5. Part 1650, *Registration, Classification, Physical Examination, Selection, and Induction of Persons in Medical, Dental, and Allied Specialist Categories,* is revoked.

DWIGHT D. EISENHOWER

What's the Doctor's Name?

by James F. Gallagher

He was born September 11, 1903, at Columbia, Tenn., and died September 20, 1957, at Quincy, Mass. He attended public schools and prepared for college at Montgomery Bell Academy in Nashville. He was graduated from Vanderbilt University in Nashville, B.A. in 1924 and M.D. in 1928. From the latter year until 1935 he served at the Boston City Hospital and the Massachusetts General Hospital. He began his psychoanalytic training with Dr. William Herman in 1931, continued with Dr. Hanns Sachs from 1934 to 1938. He was a teacher of neurology, neuropathology and psychiatry, and from 1950 was clinical associate in psychiatry at Harvard Med. School.

During World War II he was a major in the U. S. Army and served in New Zealand and in the South Pacific as a psychiatric consultant. In 1946, as Lt. Colonel, he was sent to China on an Army mission. At the end of the year he received his discharge; but remained in the organized reserve with the rank of Colonel. Returning to civilian life he resumed his practice in Boston.

His hobbies were iris growing, shell collecting, photography, the study of languages and swimming. For several years he competed in the great salt water swimming marathon of eight miles to Boston Light.

Although his published medical articles run to more than a hundred and fifty titles he is best known as a writer of sonnets. He is reliably estimated to have written more of these poems, singlehanded, than the entire output of the ages before him.

He described his writing in proper psychiatric terms as a "compulsion addiction" to the sonnet form and said that writing sonnets was his own "occupational therapy." His daily average was from two to five sonnets in a hybrid form of his own devising (he even composed while waiting for a traffic light to change), and while he spoke of them as "illegitimate" sonnets, the *Saturday Review of Literature* commented, "there is some rich poetry embedded in these diagnostic statements."

Some of his book titles are: *The Noise That Time Makes* (1929), *Six Sides to a Man* (1935), *M: One Thousand Autobiographical Sonnets* (1938), *Clinical Sonnets* (1949), *Illegitimate Sonnets* (1950), *Case Record from a Sonnetorium* (1951), and *Verse Diary of a Psychiatrist* (1954).

(Answer on page 168)

Mediquiz

Questions are from a civil service examination given to candidates for physician appointments in municipal government.

Answers on page 164.

1. A 55-year-old man presents himself for advice with the following information.

Present history: For the past year he has had vague abdominal symptoms of flatulence, belching, dysphagia, distress after meals and frequent bowel movements (up to ten daily) normal in consistency and appearance. Appetite has remained good. He has gained fifteen pounds in weight. He has complained of frequent sub-occipital headaches. Rapid palpitations, increased sweating and momentary sharp pain lateral to the left nipple have been noticed at home. His sleep has been restless. He frequently gets up at night and eats a cracker which, he says, quiets him and permits him to sleep better.

Past history: Usual childhood exanthemata with no residue.

Family history: Father died at age 56 of carcinoma of the stomach. Mother died at 79 of congestive heart failure. Only brother, who had been living with him, died of metastatic carcinoma two years previously at age 50.

Physical examination: A rather apprehensive male of 55, obese, in no acute distress. Positive findings: Pulse varies 76-110, sinus arrhythmia, blood pressure 160-140 systolic, 80-70 diastolic.

The one of the following which might explain all these symptoms is: (A) hypothyroidism; (B) hypertensive heart disease with anginal syndrome; (C) carcinoma of the stomach; (D) anxiety state.

2. In question number one, if the patient has hyperthyroidism, all symptoms could be explained on that condition alone except for: (A) frequent bowel movements; (B) gain in weight; (C) palpitation; (D) restlessness at night.

3. In question one, if the patient has hypertensive heart disease, the one of the following laboratory find

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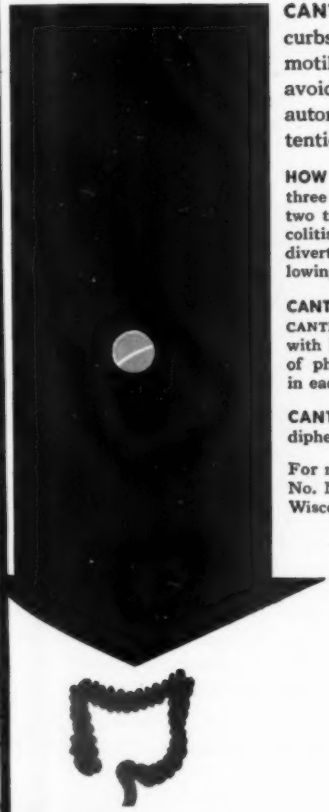
for the colon

for functional and organic disorders



CANTIL relieves pain, cramps, bloating... curbs diarrhea...restores normal tone and motility. Selective action focused on the colon avoids widespread interference with normal autonomic function...minimizes urinary retention, mouth dryness, blurring of vision.

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44457

ings which would help establish the diagnosis is: (A) protein in urine; (B) increase in blood urea; (C) fixation of urinary specific gravity; (D) cardiac enlargement on x-ray.

4. In question number one, if you suspect carcinoma of the stomach, the one of the following laboratory findings which would be of greatest significance is: (A) erythrocyte sedimentation rate increased; (B) decrease in white blood count; (C) achlorhydria; (D) occult blood in stool.

5. In question number one, if the patient is suffering from anxiet state, he will show: (A) equal an overactive knee jerks; (B) dors flexion of great toe in plantar r flex; (C) unequal pupils; (D) a sent cremasteric reflexes.

6. The one of the following cours which would be most helpful in d termining whether or not the dia nosis (in question number one should be anxiety state is: (A) o taining further history; (B) findin a normal stomach on radiographi study; (C) finding a normal electr cardiogram; (D) finding an abse gag reflex.

7. In young patients with rheumatic heart disease, the most frequent of the following causes of heart failure is: (A) overexertion; (B) active rheumatic carditis; (C) emotional trauma; (D) pericardial effusion.

8. The most common cause of right ventricular failure is: (A) tight mitral stenosis; (B) advanced cor pulmonale; (C) pulmonary stenosis; (D) left ventricular failure.

9. The diagnosis of mitral insufficiency in a young patient is justified if there is a systolic murmur at the apex which is: (A) loud and harsh; (B) transmitted; (C) associated with cardiac enlargement; (D) accompanied by a loud third sound.

10. Clinically, auricular fibrillation must be differentiated from: (A) auricular flutter with complete A-V block; (B) auricular flutter with 1 to 4 ventricular response; (C) auricular flutter with varying ventricular response; (D) normal sinus rhythm with alternating left bundle branch block.

11. Generalized arteriolar vasoconstriction causes an increase principally in: (A) systolic blood pressure; (B) diastolic blood pressure; (C) pulse pressure; (D) capillary blood pressure.

12. Radiographically, the characteristic shape of the cardiac silhouette in well-established hypertensive heart

disease is: (A) boot shape; (B) water bottle shape; (C) straightened left border due to obliteration of the cardiovascular angle; (D) caused by prominence of the pulmonary conus.

13. Of the following diseases, the one most likely to be followed by glomerular nephritis is: (A) mumps; (B) diphtheria; (C) chicken pox; (D) scarlet fever.

14. Of the following diseases, the one in which increased titre of heterophile antibodies is an important diagnostic aid is: (A) typhus fever; (B) infectious mononucleosis; (C) lymphocytic choriomeningitis; (D) influenza.

15. Of the following diseases, the one in which perforation of the bowel is most likely to occur is: (A) amebiasis; (B) bacillary dysentery; (C) typhoid fever; (D) typhus fever.

16. Of the following diseases, the one in which a marked leukocytosis is most likely to be found is: (A) lobar pneumonia; (B) primary atypical pneumonia; (C) pulmonary tuberculosis; (D) influenza.

"MEDIQUIZ" ANSWERS

1(D), 2(B), 3(D), 4(D), 5(A), 6(A), 7(B), 8(D), 9(C), 10(C), 11(B), 12(A), 13(D), 14(B), 15 (C), 16(A),

Resident Physician Advertisers' Index December 1957

WHAT'S THE DOCTOR'S NAME?

(answer from page 154)

The doctor is MERRILL MOORE.

VIEWBOX DIAGNOSIS

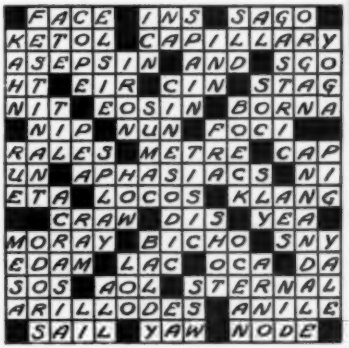
(from page 15)

Pulmonary Osteoarthropathy

Note diffuse periosteal thickenings of lower end of humerus and of the radius and ulna in a patient with chronic bronchiectasis.

RESIDENT RELAXER

(puzzle on page 21)



RESIDENTS WANTED

130 bed teaching chest medical and tuberculosis unit has a 1 year to 18 month approved residency in pulmonary diseases, and cardiopulmonary physiology. Unit is completely integrated with the Medical Service. Appointments are available every 6 months. Candidate must be U. S. citizen, a graduate of an approved medical school, and must have one year of approved medical residency. Apply to: D. J. Stone, M.D. Chief, Chest Section and Cardiopulmonary Laboratory, VA Hospital, 130 West Kingsbridge Road, Bronx 68, New York.

Two Year RESIDENCY IN GENERAL PRACTICE; January 1, July 1, 1958; 200 bed general hospital; excellent teaching program; good salary. Woonsocket Hospital, Woonsocket, Rhode Island.

PSYCHIATRY RESIDENCIES — Southwestern Medical School—Parkland Memorial Hospital 3 year approval; new program features inpatient, outpatient, psychosomatic, and child experiences in teaching and research setting; Direct inquiries to: R. L. Stubblefield, M.D.; Medical School, 5323 Harry Hines Boulevard, Dallas, Texas.

PUBLIC HEALTH PHYSICIAN (State-Resident) Opportunity for training and service in public health medicine. M.D. degree and one year internship required. Salary range $7920-9720. Merit System Council, 308 Littlefield Building, Austin 15, Texas.

PROCTOLOGIC FELLOWSHIP—Available July 1, 1958; College of Medical Evangelists, 1720 Brooklyn Avenue, Los Angeles 33, California. Well rounded program with active clinic and operative services; graduate work leading to Board eligibility in Proctology. Only those with certification or eligibility in General Surgery need apply. Apply: Department of Proctology, c/o H. M. Young, M.D., Chairman of Department.

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USED MEDICAL BOOKS Bought and Sold. Second hand book list available. Send 10c. Miss Frances Freedman, Book Dealer, Literary Agent, 524 East 82nd St., New York City, Butterfield 8-6379. Shop open Tuesdays 6:30 P.M.—9.00 P.M.

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FOR SALE—BY OWNER; Large Rambler 4831 Silver Hill Road, Suitland, Maryland; suitable for home-offices; fireproof steel and concrete construction; over 1,000 square feet recreation room convertible to offices; must be seen to appreciate possibilities; owner on premises 4:30 until dark, weekdays; all day Saturday and Sunday, no "For Sale" sign.

FOR SALE

Philips Metalix 50 KVP Contact X-Ray Apparatus in excellent condition; price FOB $1,000. Wm. Arbonies, M.D., 130 North Virginia. Reno, Nevada.

PRINTING and RECORDS

Resident Physician

Annual Index

Volume III—Nos. 1-12

SUBJECTS

LICENSURE FOR FOREIGN GRADUATES

GUEST EDITORIALS

MEDICAL CENTERS

EQUIPPING

EDITORIALS

FORENSIC MEDICINE

RESIDENT ROUNDTABLE

CLINICO-PATHOLOGICAL CONFERENCES

daytime diuresis

in cardiac edema

nighttime rest

Cardiac patients on DIAMOX do not show fluid and weight fluctuations, since DIAMOX is effective not only in the *mobilization of edema fluid*, but in the *prevention of fluid accumulation* as well. Excretion by the kidney is complete within 24 hours with no cumulative effects.[1]

A highly versatile diuretic, DIAMOX has proved singularly useful in other conditions as well, including acute glaucoma, epilepsy, toxemia and edema of pregnancy, premenstrual tension and edema associated with obesity.

DIAMOX is well-tolerated orally, and even when given in large dosage serious side effects are rare. A single dose is active for 6 to 12 hours, offering convenient *daytime diuresis* and *nighttime rest*.

Supplied: Scored Tablets of 250 mg. Ampuls of 500 mg. for parenteral use. Syrup: bottles of 4 fluid ounces, 250 mg. per 5 cc. teaspoonful, peach flavor.

1. Goodman, L. S. and Gilman, A.: *The Pharmacological Basis of Therapeutics*, Ed. 2, The Macmillan Co., New York, 1955, p. 856.

nonmercurial diuretic

Diamox*

ACETAZOLAMIDE LEDERLE

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, N.Y.

*Reg. U.S. Pat. Off

Answers to some questions on Cervilaxin[1,2]

Q. What is Cervilaxin?

A. Cervilaxin is a new, highly purified form of relaxin, a hormone normally produced at term.

Q. When is it indicated?

A. Cervilaxin is of value in frank labor with slow cervical dilatation, and, with oxytocin, for induction of labor and uterine dysfunction.

Q. What are its advantages?

A. Cervilaxin eases and shortens labor (see Fig. 1): less pain, less trauma, less need for intervention. It lessens danger of fetal damage (brain injury).

Cervilaxin makes oxytocin safer since there is less likelihood of uterine rupture or other adverse effects.

Q. How does it act?

A. Cervilaxin softens the cervix so that it offers less resistance to passage of the fetus; dilatation is facilitated.

Q. Is Cervilaxin recommended for controlling premature labor?

A. No. In massive doses Cervilaxin may retard uterine contractions and prevent premature birth, but this effect is not evident in the smaller doses recommended here.

Q. Is Cervilaxin indicated only in primiparas?

A. No, Cervilaxin has been used with good results in primiparas, and in multiparas with a history of previous difficult labor.

Q. Does Cervilaxin interfere with necessary uterine contractions during labor?

A. No. In recommended dosage there is no interference with well established, regular and normal physiological functions before, during, or after delivery.

Q. What effect does Cervilaxin have on other drugs given during delivery?

A. Cervilaxin does not interfere with the action of any of the drugs commonly employed before, during, or after delivery.

Q. What side effects have been observed?

A. To date, none.

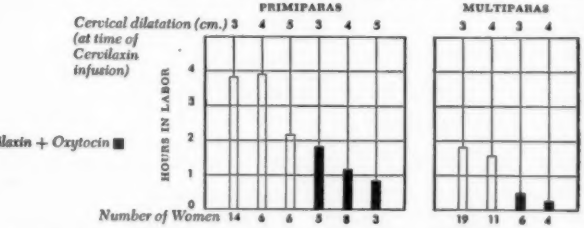
Q. How is Cervilaxin administered?

A. By intravenous drip.

Q. What is the dose?

A. Cervilaxin is supplied in 2 ml. vials containing 20 mg./ml. Usually this one dose is sufficient. Complete dosage and administration instructions are in the package literature.

Fig. 1. Time in labor—Oxytocin vs. Cervilaxin plus Oxytocin



1. Adapted from Birnberg, C. H. and Abitbol, M. M.: Refined Relaxin and Length of Labor, Obst. & Gynec., in press.
2. Eisenberg, L.: Facilitation of Full-Term Labor with Relaxin, in press.

only one has all four

NESACAINE®

(CHLOROPROCAINE HYDROCHLORIDE)

the new local anesthetic agent

more potent . . . yet less toxic than procaine

SWIFT ONSET "Sensory anesthesia was complete within 6 to 10 minutes."[1]

GREATER SAFETY "Its [Nesacaine] chief virtue appears to be its relative non-toxicity. [No reactions in 350 anesthetics.]"[2]

HIGH DIFFUSIBILITY "The almost instantaneous onset of anesthesia . . . is caused by the increased penetrating capacity [of Nesacaine] . . ."[3]

MAXIMAL EFFICACY "Nesacaine . . . was found effective . . . it would appear to be the best agent for use as a local anesthetic."[2]

1. Colavincenzo, J. W., and others: Pennsylvania M. J. 59:338 (March) 1956.
2. Ansbro, F. P., and Furlong, R. E.: Adelphi Hosp. Bull. 15:2 (May) 1957.
3. Foldes, F. F., and McNall, P. G.: Anesthesiology 13:287 (May) 1952.

In 30 cc multiple dose vials—
1% Nesacaine for infiltration and field block
2% Nesacaine for regional block

In 30 cc single dose vials—
3% Nesacaine for caudal and epidural block

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MALTBIE LABORATORIES DIVISION / WALLACE & TIERNAN INC.
Belleville 9, N. J.

new the complete cold formula

Antitussive
Antihistaminic
Decongestant
Analgesic-Antipyretic

ROMILAR CF

ROMILAR CF

The new complete cold formula

brings new ease and comfort to patients with colds and other upper respiratory disorders by providing more complete control of symptoms.

Each teaspoonful (5 cc) of pleasant tasting Romilar CF syrup provides:

ANTITUSSIVE	Romilar® Hydrobromide*	15 mg
ANTIHISTAMINIC	Chlorpheniramine Maleate	1.25 mg
DECONGESTANT	Phenylephrine Hydrochloride	5 mg
ANALGESIC-ANTIPYRETIC	N-acetyl-p-aminophenol	120 mg

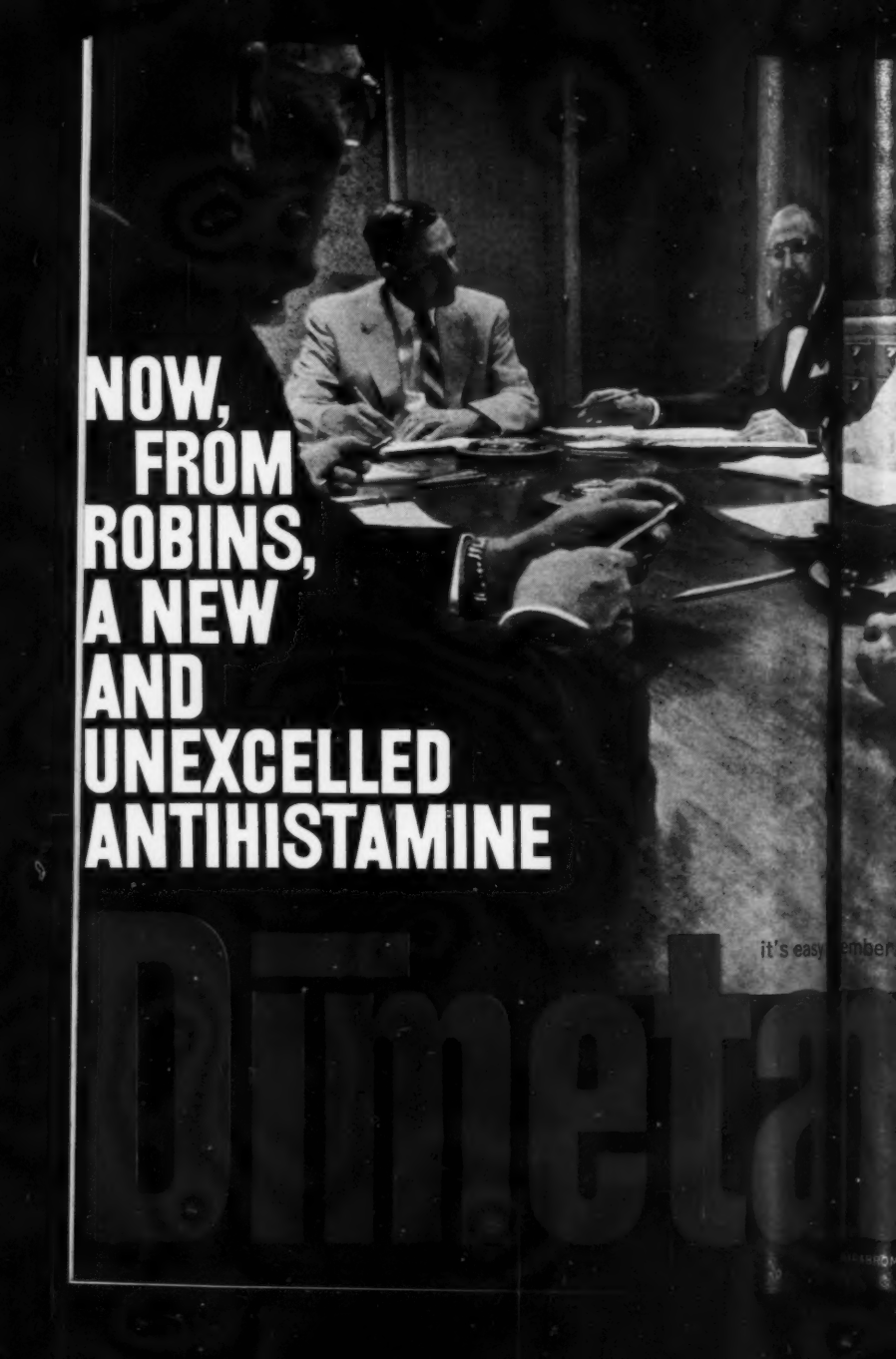
* Brand of dextromethorphan hydrobromide—the non-narcotic cough specific with codeine's antitussive effect but without codeine's side effects.

ROCHE LABORATORIES, Division of Hoffmann-La Roche Inc, Nutley, New Jersey

On Research Project CL19823:

Creating a major drug with great new promise

*Coming soon from Lederle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ROBINS,
A NEW
AND
UNEXCELLED
ANTIHISTAMINE
it's easy
Dimetane

why Dīmetane is the best reason yet for you to re-examine the antihistamine you're now using

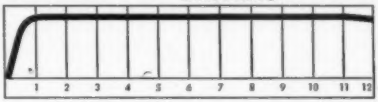
» *Milligram for milligram, DIMETANE potency is unexcelled.* DIMETANE has a therapeutic index unrivaled by any other antihistamine—a relative safety unexceeded by any other antihistamine. DIMETANE, even in very low dosage, has been effective when other antihistamines have failed. Drowsiness, other side effects have been at the very minimum.

unexcelled antihistaminic action

Diagnosis	No. of Patients	Response				Side Effects
		Excellent	Good	Fair	Negative	
Allergic rhinitis and vasomotor rhinitis	30	14	9	5	2	Slight Drowsiness (3)
Urticaria and angioneurotic edema	3	1	1	1		Dizzy (1)
Allergic dermatitis	2		1	1		Slight Drowsiness (2)
Bronchial asthma	1		1			
Pruritus	1		1			
Total	37	15	13	7	2	Drowsiness (5) 16.2% Dizzy (1)

From the preliminary Dimetane Extentabs studies of three investigators. Further clinical investigations will be reported as completed.

a blanket of allergic protection, covering 10-12 hours—with just one Dīmetane Extentab



Periods of stress can be easily handled with supplementary Tablets or Elixir to obtain maximum coverage. Extentabs 12 mg., Tablets 4 mg., Elixir 2 mg. per 5 cc.

DOSAGE: Adults—One or two 4-mg. tabs. or two to four teaspoonfuls Elixir, three or four times daily. One Extentab q 8-12h. or twice daily. Children over 6—One tab. or two teaspoonfuls Elixir t.i.d. or q.i.d., or one Extentab q 12h. Children 3-6—½ tab. or one teaspoonful Elixir t.i.d.

Robins

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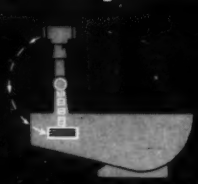
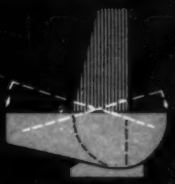
's easy ember Di'me tane

BROMDYLAMINE MALEATE

probably the easiest-to-use x-ray table in its field



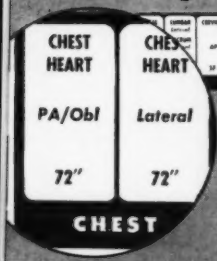
Instant swing-through from fluoroscopy to radiography (and vice versa). Self-guiding to correct operating distance. Nothing to match up, you do it without leaving the table front



Horizontal, vertical, intermediate, or Trendelenburg positions by equipoise handrock (or quiet motor-drive).

Choice of rotating or stationary anode x-ray tubes. Full powered 100 ma at 100 KVP.

certainly the simplest automatic x-ray control ever devised



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1 On this board you select the bodypart you want to x-ray

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That's all there is to it. No time, KV, or MA adjusting to do. No charts to check, no calculations to make.

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Top Reputation (significantly, "Century" trade-in value has long been highest in its field)

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diagnostic x-ray unit

Picker x-ray

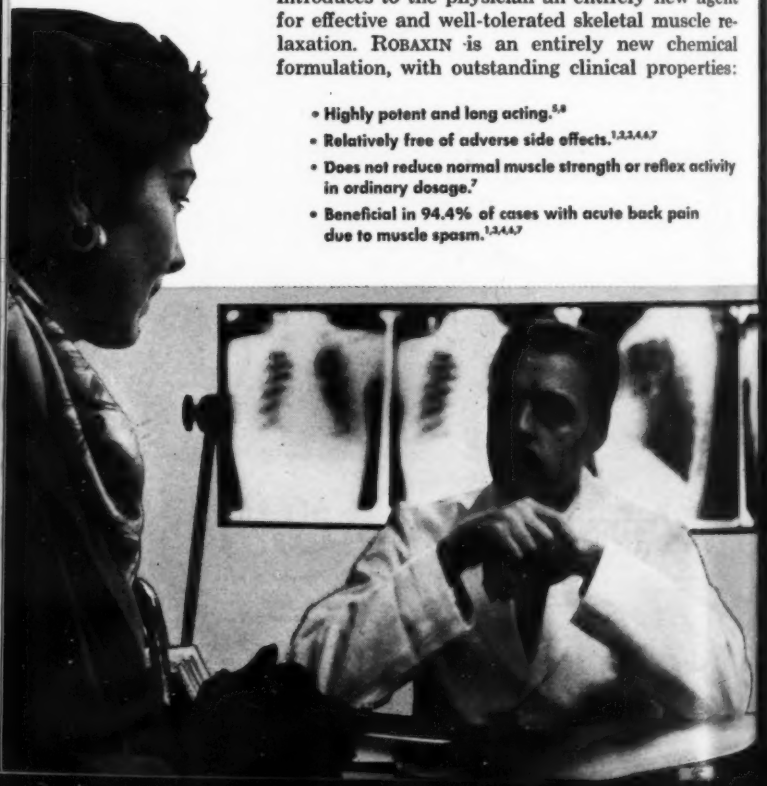
Significant Robins research discovery:

A NEW SKELETAL MUSCLE RELAXANT

Rob

ROBAXIN – synthesized in the Robins Research Laboratories, and intensively studied for five years – introduces to the physician an entirely new agent for effective and well-tolerated skeletal muscle relaxation. ROBAXIN is an entirely new chemical formulation, with outstanding clinical properties:

- **Highly potent and long acting.**[5,6]
- **Relatively free of adverse side effects.**[1,2,3,4,6,7]
- **Does not reduce normal muscle strength or reflex activity in ordinary dosage.**[7]
- **Beneficial in 94.4% of cases with acute back pain due to muscle spasm.**[1,3,4,6,7]



obaxin®

(Methocarbamol Robins, U.S. Pat. No. 2770649)

Highly specific action

ROBAXIN is highly specific in its action on the internuncial neurons of the spinal cord – with inherently sustained repression of multisynaptic reflexes, but with no demonstrable effect on monosynaptic reflexes. It thus is useful in the control of skeletal muscle spasm, tremor and other manifestations of hyperactivity, as well as the pain incident to spasm, without impairing strength or normal neuromuscular function.

Beneficial in 94.4% of cases tested

When tested in 72 patients with acute back pain involving muscle spasm, ROBAXIN induced marked relief in 59, moderate relief in 6, and slight relief in 3–or an over-all beneficial effect in 94.4%.[1,3,4,6,7] No side effects occurred in 64 of the patients, and only slight side effects in 8. In studies of 129 patients, moderate or negligible side effects occurred in only 6.2%.[1,2,3,4,6,7]

Indications – Acute back pain associated with: (a) muscle spasm secondary to sprain; (b) muscle spasm due to trauma; (c) muscle spasm due to nerve irritation; (d) muscle spasm secondary to discogenic disease and postoperative orthopedic procedures; and miscellaneous conditions, such as bursitis, fibrositis, torticollis, etc.

Dosage – Adults: Two tablets 4 times daily to 3 tablets every 4 hours. Total daily dosage: 4 to 9 Gm. in divided doses.

Precautions – There are no specific contraindications to Robaxin and untoward reactions are not to be anticipated. Minor side effects such as lightheadedness, dizziness, nausea may occur rarely in patients with unusual sensitivity to drugs, but disappear on reduction of dosage. When therapy is prolonged routine white blood cell counts should be made since some decrease was noted in 3 patients out of a group of 72 who had received the drug for periods of 30 days or longer.

Supply – Robaxin Tablets, 0.5 Gm., in bottles of 50.

References: 1. Carpenter, E. B.: Publication pending. 2. Carter, C. H.: Personal communication. 3. Forsyth, H. F.: Publication pending. 4. Freund, J.: Personal communication. 5. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: American Pharm. Assn. 46:374, 1957. 6. Nachman, H. M.: Personal communication. 7. O'Doherty, D.: Publication pending. 8. Truitt, E. B., Jr., and Little, J. M.: J. Pharm. & Exper. Therap. 119:161, 1957.

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RE-INFECTION CHECKMATE

". . . the incidence of Trichomonas vaginalis in the male is the principal factor of re-infection in the female. . . ."[1] The husband's cooperation, which often prevents a recurrence of the wife's infection, is readily gained when you make it a point to prescribe or recommend RAMSES® prophylactics. Specifying RAMSES for her husband when you outline therapy for your patient stresses the importance of his help as part of the treatment plan.

More husbands prefer RAMSES—the prophylactic with "built-in" sensitivity. These smooth, transparent, tissue-thin yet very strong prophylactics, made of natural gum rubber, are *different*. They do not dull sensation and are unexcelled in quality. You'll find that more husbands will cooperate with you in helping their wives if you remember to write or suggest RAMSES.

1. Feo, L. G., et al.: J. Urol. 75:711 (April) 1956.

RAMSES®
prophylactics

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why 'Neosporin' is so widely used in dermatologic and ophthalmic infections...

1 ***Because it provides a broader spectrum of bactericidal activity than is available from any single agent.***

The first principle of treating bacterial infections of the skin and eyes (where secondary invaders must be considered as well as the original pathogen) is to use antibacterial therapy of the widest possible scope.

'Neosporin' is the most effective combination of bactericidal agents known for the eradication of bacteria commonly present in topical infections.

2 ***Because its use spares the patient sensitization — in two ways...***

a. Development of local allergic reaction to any of the antibiotics in 'Neosporin' is rare.

b. None of the antibiotics in 'Neosporin' is widely used systemically. Choosing 'Neosporin' for topical infections saves sensitizing the patient to other antibiotics which he may subsequently need for a systemic infection.

SAFE ■ BACTERICIDAL ■ BLAND

'NEOSPORIN'® brand

ANTIBIOTIC OINTMENT

Polymyxin B–Bacitracin–Neomycin

Tubes of ½ oz. and 1 oz. with applicator tips, and ⅛ oz. with ophthalmic tip.

ANTIBIOTIC OPHTHALMIC SOLUTION

Polymyxin B–Gramicidin–Neomycin

Bottles of 10 cc. with sterile dropper.

BURROUGHS WELLCOME & CO. (U. S. A.) INC., Tuckahoe, New York


tailored to his size
new TEDRAL®
pediatric suspension
Children readily accept candy-flavored Tedral Pediatric Suspension, formulated especially for the small fry. Tedral Pediatric Suspension is a half-strength preparation, easily and safely administered. Tedral Pediatric Suspension — supplied in half pints for half-pint patients. Each teaspoonful (5 cc.) contains the following:
theophylline (1 gr.) . . . . to relieve constriction
ephedrine HCl (3/16 gr.) . to reduce congestion
phenobarbital (1/16 gr.) . for moderate sedation
DOSAGE: Children 6 to 12 years: 1 teaspoonful.
Children over 12 years: 2 teaspoonfuls. May be repeated every 4 hours, preferably after meals.
Children under 6 years: smaller doses in proportion to age.

NO KNOWN CONTRAINDICATIONS

ROLICTON®

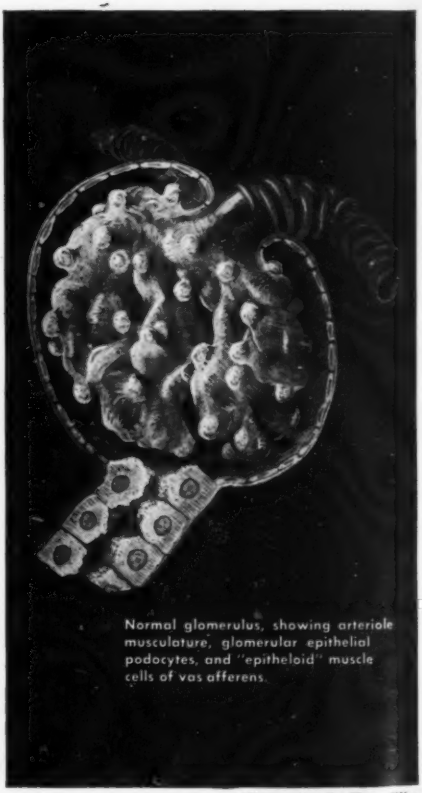
permits high dosage, more effective diuresis in more patients

The low incidence of side actions with Rolicton (brand of amisometradine) permits high dosage, extending the range of effective diuresis to a greater number of patients than was previously possible.

Laboratory studies demonstrate that Searle's new oral diuretic, Rolicton, causes positive diuresis with an essentially balanced excretion of water, sodium and chlorides.

Settel[1] studied the effect of Rolicton in forty-seven patients and found no serious side effects. Assali, who observed the action of Rolicton in five patients with severe toxemia of pregnancy, states[2] that side actions are essentially nonexistent. Side actions of such low incidence, together with its diuretic efficacy, suggest a high order of usefulness for Rolicton.

One tablet of Rolicton, b.i.d., is usually adequate to maintain patients free of edema after the first day's dosage of four tablets. Some patients respond well to one tablet daily. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

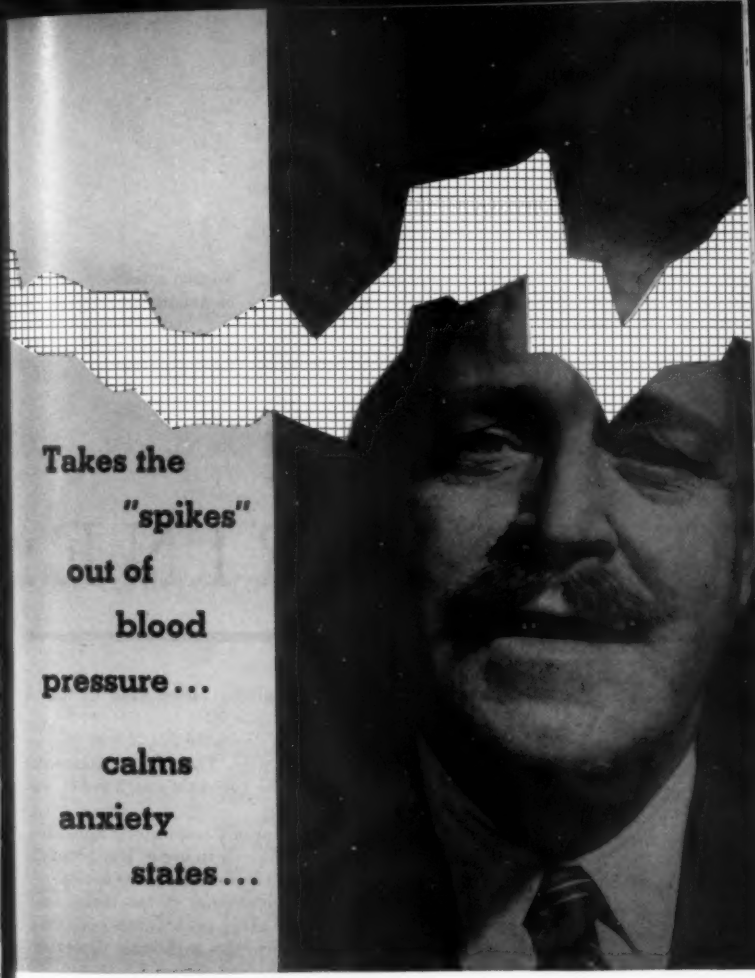


Normal glomerulus, showing arteriole musculature, glomerular epithelial podocytes, and "epitheloid" muscle cells of vas afferens.

Illustration by Hans Elias

1. Settel, E.: Rolicton® (Aminoisometradine), a New, Nonmercurial Diuretic. Postgrad. Med. 21:186 (Feb.) 1957.
2. Assali, N. S.: Personal communication, May 28, 1956.

SEARLE



Butiserpine®

Quiescence is prescribed when you use Butiserpine.

The Butisol component acts at once to produce its well-known quieting "daytime sedation." And the small dosage of reserpine gradually builds up its tension-suppressing effect, without the disturbing side reactions of larger dosage.

Each tablet or teaspoonful of elixir contains:
BUTISOL SODIUM® 15 mg. (¼ gr.)
Butabarbital Sodium
Reserpine 0.1 mg.
Prestabs* Butiserpine R-A (Repeat Action Tablets)

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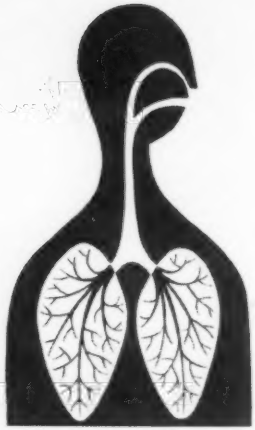

No. 3 in a descriptive series on Abbott specialties

®CALCIDRINE:

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Please note that we are talking about how to *control* coughing. Not how to eliminate it.

Indeed, coughing may be desirable . . . if it is productive, and if it occurs not too often. Thus, with CALCIDRINE Syrup, you aim to damp the patient's cough reflex, but not to abolish it.

Cough may arise from various respiratory infections. Or it may be allergic or asthmatic in orgin. But probably it involves several or all of the following five needs.

1. *Demulcent.* Mucous membranes of the throat may become dry and irritated after protracted coughing. CALCIDRINE's syrup base provides a distinct demulcent or soothing effect on the inflamed tissues.

2. *Expectorant.* It is desirable to moisten the irritated regions of the larynx and tracheobronchial tree. By inducing a more watery type of secretion, the physician also helps loosen thickened mucus deposits, making them easier to cough up.

Iodide is the most efficient expectorant known for this purpose, and CALCIDRINE contains greater iodide content than any other cough syrup marketed. Iodide appears in the bronchi rapidly (within about 30 minutes), where it stimulates flow of thin mucus.

712288

Each 30 cc. (1 fl.oz.) represents:

Dihydrocodeinone Bitartrate	10 mg. (⅙ gr.)
NEMBUTAL® (Pentobarbital, Abbott) Sodium	25 mg. (⅜ gr.)
Ephedrine Hydrochloride	25 mg. (⅜ gr.)
Calcium Iodide, anhydrous	910 mg. (14 grs.)

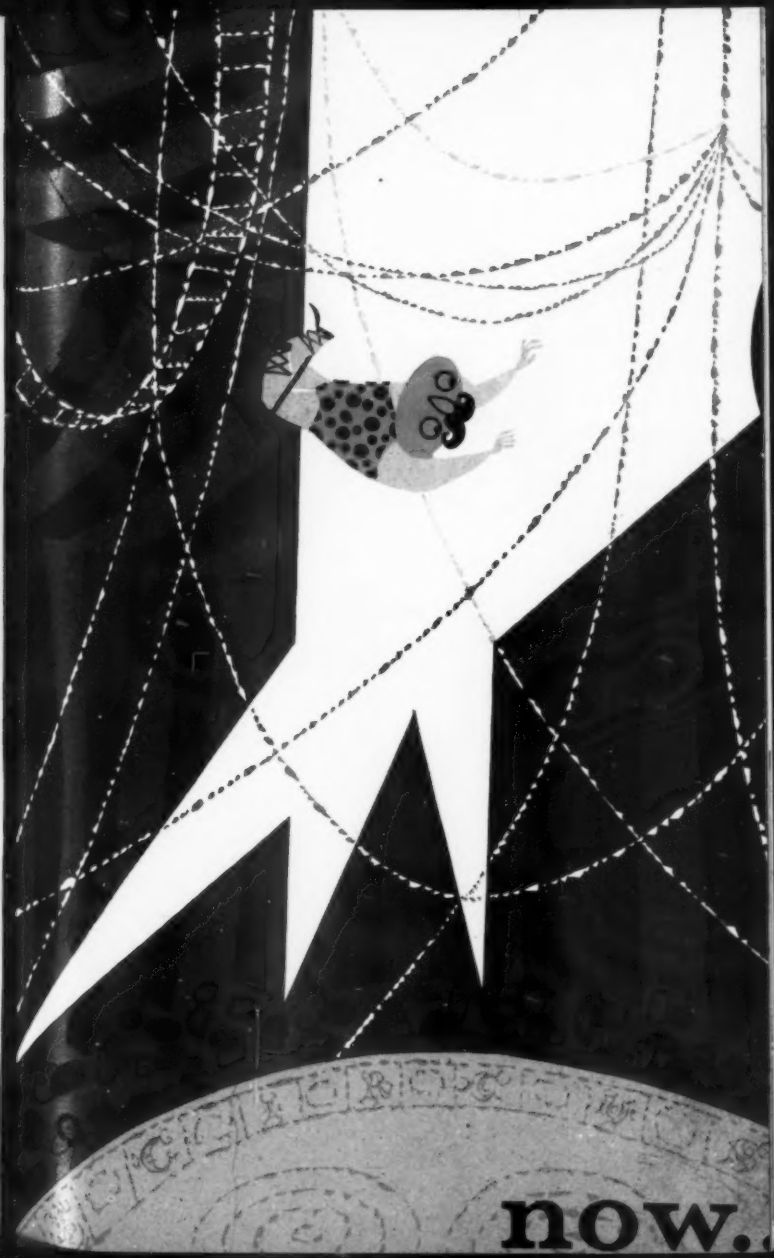
a five-cornered rationale to control coughing

3. *Reflex depressant.* An overactive cough reflex is apt to become inefficient. Constant coughing then brings the patient no relief from the tickle, but only further irritation and fatigue. CALCIDRINE depresses the excited cough center with dihydrocodeinone. (This drug is as effective as codeine, but with one-sixth the dose, and with lower incidence of nausea.) Cough episodes are made fewer, and more efficient.

4. *Bronchodilator.* A mild degree of spasm is commonly created in the smooth muscle of the tracheobronchial tree. CALCIDRINE relaxes this muscle with ephedrine, a well-known bronchodilator, augmented with NEMBUTAL.

5. *Sedative.* The NEMBUTAL content serves the further purpose of mild sedation. It eases the fretfulness so often associated with reaeated coughing. This is especially helpful where night cough prevents rest.

Here, then, is an up-to-date rationale of symptomatic relief for an old problem. (Incidentally, not its least useful feature is that patients find CALCIDRINE agreeable: a light syrup of clear amber color and of apricot flavor.) We hope you'll keep CALCIDRINE in mind for your own practice. Abbott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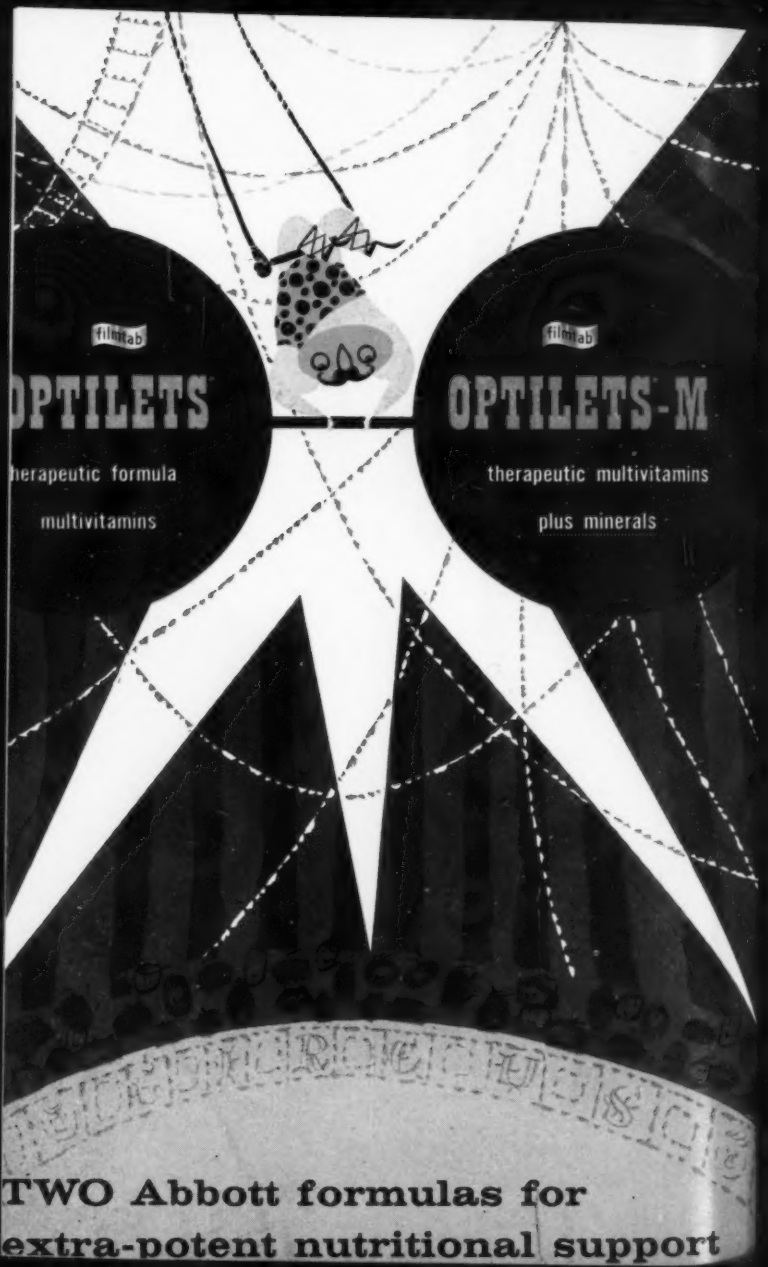
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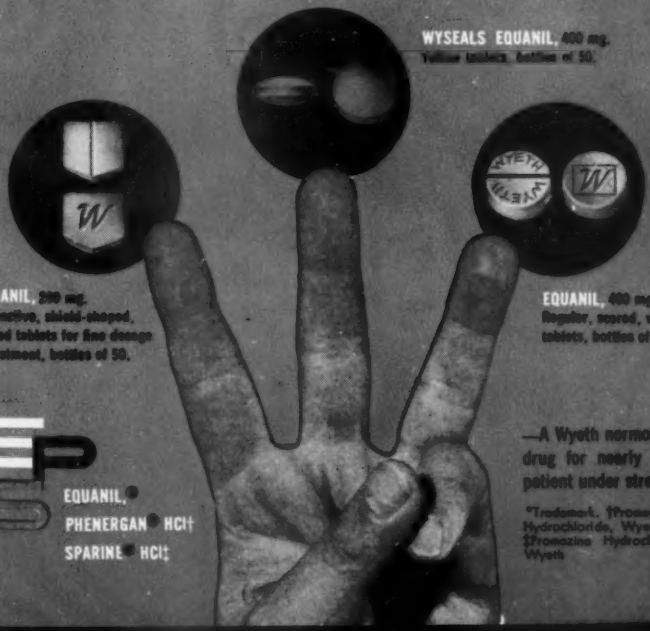

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EQUANIL, 200 mg. Distinctive, shield-shaped, scored tablets for fine dosage adjustment, bottles of 50.

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OPPORTUNITIES for Practice with able group of physicians and surgeons in this GM&S 600 bed Veterans Administration Hospital, Columbia, South Carolina. Positions in Radiology, Otolaryngology, Pathology, Orthopedics, General Surgery and General Medicine are available. Unexpected openings also available for two General Practitioners. Salaries up to $12,685 depending on qualifications, plus specialty allowance. Liberal vacation, sick leave and retirement plan. Ideal year-round climate. U. S. citizenship and license of any State required. Excellent opportunity. Write Director Professional Services, Veterans Administration Hospital, Columbia, South Carolina.

GENERAL PRACTITIONER for permanent association with general practice group in northwest Chicago. Regular hours, pleasant working conditions, unusual opportunity. 7800 West Higgins Road, Chicago 31, Illinois.

WANTED: STAFF PSYCHIATRIST—Board eligible or finishing formal training in 1957. Active teaching of residents and medical students. Participation and supervision of psychotherapy in intensive Treatment Service. Research involved in new biochemical trends. Progressive patient-oriented programs include patient-government and individual community employment. Write or phone E. P. Brannon, M.D., Manager, VA Hospital, Coatesville, Pennsylvania.

PHYSICIANS WANTED

WANTED—Thoroughly qualified PHYSICIAN for general practice and industrial work. 200 Republic Building, Cleveland 15, Ohio.

PHYSICIANS—interested in participating in active psychiatric treatment program. State hospital located within 30 miles of large medical center. Salaries $8820 to $12,500 with additional $1,000 for Board Certification. Apply Superintendent, Terrell State Hospital, Terrell, Texas.

CALIFORNIA — PULMONARY DISEASES — 1 staff appointment available on Pulmonary Disease Service of large teaching hospital; excellent research facilities, laboratories, pulmonary function unit, etc.; affiliated with the 3 medical schools in Los Angeles; particularly suitable for physicians completing residency in Internal Medicine; salary to $7570 per year. Write Director, Professional Services, VA Hospital, Long Beach 4, California.

WANTED—PATHOLOGIST: certified or qualified; busy 354 bed GM&S Veterans Administration Hospital, Lake City, Florida; Salary range $8990 to $12,685 plus 25 percent for certification; Florida License not required. Write: Manager VA Hospital, Lake City, Florida.

HOUSE DOCTOR WANTED: for 152 bed general hospital, plus 36 bassinets; fully accredited by the Joint Commission on Accreditations of Hospitals; staffed by over 60 doctors; large out patient service with a very active emergency room; plus a large maternity section. The hospital is located between two busy highways; plus many heavy industries; therefore, this brings about a considerable amount of accidents. House staff consists of four doctors rotating on different service each month. Good salary with excellent living conditions; preferably, single doctors. Apply Dover General Hospital, Jardine Street, Dover, N. J. Attention: C. T. Barker, Director.

WANTED — OTOLARYNGOLOGIST. Board eligible or will consider subsidy of man through last year or two of residency. 15 man well-established group; medical school affiliation; associated with excellent 130 bed expanding hospital; good salary; junior partnership after two years; travel expenses paid applicants invited for interview. Apply: Dr. Charles Holzer, Holzer Hospital and Clinic, Gallipolis, Ohio.

PENNSYLVANIA — Excellent opportunity for general practitioner to resume practice of deceased physician; willing to start a young doctor in well established very lucrative practice in a growing town of 10,000; ideal location within short distance of hospital; equipped offices. For information write: Mrs. M. J. Tornatore, Hyde, Pennsylvania, Clearfield County.

WANTED—A physician in a town of 2500 in Northwestern Pennsylvania. Good opportunity for a physician and surgeon. Office for rent and equipment for sale, due to death of former doctor. Write or call Otto Township Lions Club, R. W. Farr, Rixford, Pa.

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CALIFORNIA — Residencies and Internships beginning July 1958 or sooner in 1500 bed medical-surgical hospital. Rotating and straight medical internships require graduation from approved medical school. Residencies require completion of approved hospital internship and are available in General Surgery, Internal Medicine, Allergy, Cardiology, Dermatology, Gastroenterology, Neurology, Neurosurgery, Ophthalmology, Orthopedics, Pathology, Psychiatry, Radiology and Urology. Citizenship required. Write Director, Professional Services, Veterans Administration Hospital, Long Beach 4.

RESIDENCIES, MENNINGER SCHOOL OF PSYCHIATRY—approved three year program—balanced clinical and didactic training including psychotherapy and somatic therapies, outpatient and child psychiatry; at VA, State and Menninger Hospitals; affiliated with Topeka Institute for Psychoanalysis. Five year appointments combining residency and staff experience for Board eligibility available at staff salaries. Write: Registrar, Menninger School of Psychiatry, Topeka, Kansas.

INTERNAL MEDICINE—Approved Fellowship; beginning stipend $225. Dr. E. H. Leveroos, Ochsner Foundation Hospital, 1516 Jefferson Highway, New Orleans 21, Louisiana.

ONE RESIDENT IN INTERNAL MEDICINE NEEDED to complete quota of six in fully approved 700 bed hospital. Apply San Joaquin General Hospital, French Camp, California.

RESIDENTS WANTED

GENERAL PRACTICE RESIDENCY: 180-bed general hospital, central New York; excellent experience and opportunity to do general surgery; New York license only; salary and maintenance. Apply: Board of Managers, Oneida County Hospital, Rome, New York.

INTERNS AND RESIDENTS WANTED—MEDICINE; 3 years residency; 400 bed teaching hospital and large outpatient clinic; affiliated with Chicago Medical school; appointment available immediately; starting stipend $125; full maintenance. Apply: Dr. Hyman Zimmerman, Chairman, Dept. of Medicine, Mount Sinai Hospital, 2750 West 15th Place, Chicago 8, Illinois.

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APPROVED RESIDENCIES available in Internal Medicine and Pediatrics in accredited 650 bed hospital in San Joaquin Valley for July 1, 1958. San Joaquin General Hospital, French Camp, California.

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VACANCIES exist for Internist and General Medicine, also residencies in internal medicine, general and orthopedic surgery and urology, approved 258 bed general hospital; citizenship and licensure in U. S. required. Contact: Manager, VA Hospital, Lincoln, Nebraska.

APPROVED RESIDENCIES—Psychiatry, Neurology, Physical Medicine; regular and career programs, 1300-bed general hospital affiliated Baylor University College Medicine. Annual stipend (regular) $2840-$3550, (career) $5915-$8990. Write Manager, VA Hospital, Houston, Texas.

RESIDENCY IN INTERNAL MEDICINE AVAILABLE—250 bed general hospital with large clinic and comprehensive teaching program; 3 year approval; excellent opportunity for teaching and subsequent practice; California licensees only. Contact: Mr. Joseph Zem, 1580 Valencia Street, San Francisco 10, California.

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GENERAL PRACTICE RESIDENCY open immediately. 225 bed general hospital, Central California. Excellent experience and opportunity to do general surgery. Good working conditions, 15 day paid vacation and holidays. Salary $700.00 per month. Housing furnished. Citizenship and California Board are necessary. Kings County General Hospital, Hanford, California.

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(1) Asung, C. L.; Charcowa, A. I., and Villa, A. P.: Sea View Hosp. Bull. *16*:80, 1956. (2) Asung, C. L.; Charcowa, A. I., and Villa, A. P.: New York J. Med. *57*:1911 (June 1) 1957. (3) Report on Field Screening of Nostyn by 99 Physicians in 1,000 Patients, June, 1956.

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